FEUERLEIN, MARGARET. Factors Affecting the Physical Education Grades of High School Girls. (1969) Directed by: Dr. Celeste Ulrich. pp. 194

The purpose of this study was to investigate evaluation practices as they were related to grading. An effort was made to expose identifiable factors with respect to evaluation and to determine possible relationships among teacher objectives and grading procedures.

The information for this study was obtained through a 45 per cent return of questionnaires mailed to a selected sample of New Jersey high school girls physical education departments. The factors affecting evaluation were identified through the employment of twenty-two conceptual questions concerning evaluation and grading.

Through the use of percentages and empirical analysis of the data, an evaluation profile was developed indicating evaluation similarities, differences, and the influences on those differences. It was then concluded that:

1. There are extraneous factors affecting the evaluation procedures. These factors include such items as class size, class time, scheduling of conferences for low grades, and the number of written tests given.
2. The physical education teachers were concerned with the total objectives of education. They tended to place great emphasis on behavior when determining a student's grade.

3. The grade resulting from evaluation tended to be based on subjective opinion more often than on objective analysis.
4. Accepted principles, as stated by experts, concerning evaluation were negated by a majority of the sample, as indicated through their grading practices.
5. There appeared to be a limited concept of the total function of evaluation. A majority of the sample used evaluation results solely for grading purposes.

FACTORS AFFECTING THE PHYSICAL EDUCATION GRADES OF HIGH SCHOOL GIRLS

by

Margaret J. Feuerlein

A Thesis Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Physical Education

Greensboro
November, 1969

Approved by

APPROVAL SHEET

This thesis has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

Thesis Adviser _____

Oral Examination Committee Members _____

_____

_____

November 3, 1969
Date of Examination

ACKNOWLEDGEMENTS

The writer wishes to express her sincere appreciation to Dr. Celeste Ulrich for her guidance, understanding and confidence.

Grateful appreciation is also extended to those concerned physical education teachers who responded to the questionnaire.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
II.	STATEMENT OF PROBLEM	4
	Delimitations	4
III.	REVIEW OF LITERATURE	5
	Evaluation	5
	Objectives	6
	Measurement	7
	Social Measurement	8
	Skill Measurement	10
	Intellectual Measurement	11
	Reporting Student Progress	13
	Grading	14
	Methods of Reporting Student Progress	18
	Summary	22
IV.	PROCEDURES	25
	Construction of Questionnaire	25
	Selection of Sample Schools	26
	Distribution and Return of Questionnaires	28
	Treatment of Data	28
V.	PRESENTATION OF DATA	32
	General Information Concerning Selected Sample	32
	Report Card Information	35
	Evaluation	37

CHAPTER PAGE

Grading Factors 38
Objectives. 40
VI. ANALYSIS AND INTERPRETATION OF DATA 41
Analysis of Questions 46
Question #1 46
Question #2 48
Question #3 50
Question #4 51
Question #5 53
Question #6 55
Question #7 56
Question #8 58
Question #9 60
Question #10. 61
Question #11. 63
Question #12. 63
Question #13. 64
Question #14. 65
Question #15. 66
Question #16. 68
Question #17. 71
Question #18. 72
Question #19. 75
Question #20. 77

CHAPTER PAGE

Question #21. 77

Question #22. 78

VII. SUMMARY AND CONCLUSIONS 81

Summary 81

Evaluation Profile. 82

Conclusions 92

Recommendations for Further Study 96

BIBLIOGRAPHY 99

APPENDICES 103

Appendix A 104

Appendix B 151

Appendix C 170

LIST OF TABLES

TABLE PAGE

I. What are the Identifiable Factors That Affect the Use of the Physical Education Grade in Determining a Student's Honor Roll Status? 105

II. What are the Identifiable Factors That Affect the Use of the Physical Education Grade in Determining a Student's Overall Grade Point Average? 107

III. What Factors Appear to Influence the Incidence of Yearly Failures? 109

IV. Does the Terminal Degree of the Teacher Affect the Grading Procedure?. 111

V. Does the Structural Grade Level of the School Affect the Grading Procedure? 113

VI. Does the Classification of the Number of Girls Enrolled in a School Affect the Grading Procedure? 116

VII. Does the Physical Education Teaching Experience Affect the Grading Procedure? 119

VIII. Does Class Size Affect the Grading Procedure?. . . 122

IX. Does the Number of Days a Class is Scheduled for Physical Education Affect the Grading Procedure? 125

TABLE PAGE

X. Does the Actual Class Time Affect The Grading Procedure? 128

XI. What is the Effect of Co-educational Activities on the Grading Procedure? 131

XII. Does the Length of the Marking Period Affect Grading Procedures? 133

XIII. Does the Use of a Space for Rating Attitude Affect the Grading Procedure? 135

XIV. Does Who Determine the Method of Recording Grades Influence the Evaluation Process? 137

XV. What are Some Factors That Might Affect the Additional Use of Student Evaluation? 139

XVI. What are the Predominate Factors used in Evaluating Skill, Knowledge, and Behavior? . . . 140

XVII. What is the Most Predominate Method used to Record Grades?. 143

XVIII. Which Method of Recording Grades Best Evaluates a Student's Work in Physical Education?. 144

XIX. Factors Affecting the Achievement of Objectives 145

XX. What are the Reflected Primary Objectives? What are the Objectives Sought?. 146

XXI. Does the Frequency of Certain Stated Objectives Affect the Evaluation Process? 147

TABLE PAGE

XXII. Does the Emphasis of Certain Reflected Objectives Affect Grading Methods? 148

XXIII. Mean Percentage Placed on Skill in Determining a Student's Grade. 149

XXIV. Rules or Regulations that Could Cause Student to Fail Regardless of Skill or Knowledge 150

XXV. Raw Data General Information Section of Questionnaire 152

XXVI. Raw Data Report Card Information Section of Questionnaire 155

XXVII. Raw Data Evaluation Section of Questionnaire. 158

XXVIII. Raw Data Grading Factors Section of Questionnaire. 160

XXIX. Raw Data Objectives Section of Questionnaire. 162

XXX. Sample of Stated Objectives Ratings. 186

CHAPTER I

INTRODUCTION

The educational system plays a major role in the development of an individual's knowledge of his potential ability from the time that the individual first enters school until his formal academic pursuit terminates. In order for the educational structure to help a student evaluate his ability, constant measurement takes place. The results of these measurement techniques can be made known to the student through various channels. One of these channels is the grade a student receives for accomplishments made during a designated period of time. It is this grade, this symbol of ability/non-ability, upon which an understanding of one's potentiality is partially based. If the grade can play a major role in student self assessment, then the evaluation process leading to the grade must have a valid and reliable base.

A variety of evaluation procedures exists among all educational fields but perhaps the most diversified of such procedures is within the physical education program. In viewing the measurement programs that exist within physical education, we see a rather broad spectrum. Some teachers will administer written knowledge tests, others will not. Some physical educators will weigh skill achievement twice as heavily as they weigh knowledge or behavior, while others place more weight on the behavioral area. Some teachers appear to regard gum chewing and punctuality habits

as important as they do skill. Teachers may measure skill achievement by utilizing standardized tests or they may choose to rely solely on a subjective rating of the student's ability. This list of inconsistencies becomes interminable when the intregal facets of evaluation are examined.

For more than thirty years, physical education has been accused of having invalid and unreliable grading practices. Can this accusation be doubted when we realize that some students receive grades that are based on how often they chew gum or how often they were late to class or how many times they refused to take showers? Can this accusation be doubted when we realize that such behaviors do not reflect the objectives of physical education?

As long as grading is to be a part of the evaluation process, questions must be asked concerning the areas of measurement and the resulting grade. Queries should be made about any inconsistencies that exist. Are there extrinsic or intrinsic factors causing the emergence of a diversified pattern of evaluation? Are physical educators forced into certain patterns of measurement by such factors as class size, marking period length, or type of grade used to report student achievement? It should be of interest to note if the resulting grade of any educational measurement program reflects the objectives sought by the teacher.

It would appear that little research has been done to determine answers to questions about grading. The areas of measurement and grading are parts of the total evaluation process and should be explored. If physical educators cannot validly assert that they

are achieving stated objectives, it will be difficult to substantiate the educational worth of physical education. Even more significant is the possibility that if the grade resulting from evaluation is neither valid nor interpretable by the student, the student may become puzzled with regard to his competence in physical education. Such a lack of understanding reflects on the value of an area.

The purpose of this investigation is to attempt to determine if there are any factors affecting the evaluation procedure. It is also done in hopes of investigating the suspicion that grades resulting from various measurement programs in physical education do not reflect the objectives sought by the teacher.

Through an understanding of existing procedures, physical educators can look at the problem objectively and then hopefully bring order to chaos.

CHAPTER II

STATEMENT OF PROBLEM

The purpose of this study was three-fold:

1. to survey the existing physical education evaluation practices as they relate to grading in a selected sample of New Jersey high schools;
2. to ascertain whether the evaluation practices were influenced by identifiable factors;
3. to ascertain possible relationships among teacher objectives and grading procedures.

Delimitations

This study was limited by the following restrictions:

1. a selected sample of New Jersey high school physical education programs for girls;
2. the classified information received from the twenty-two conceptual questions employed in the analysis;
3. a forty-five per cent return of the questionnaire.

CHAPTER III

REVIEW OF LITERATURE

In order to properly analyze or compare different methods of grading found in various physical education programs, it is essential that the critic first understand the rationale of the overall evaluation process within the educational structure. Evaluation, its purposes, values, and techniques must be examined in light of the educational philosophy which reflects a given society, for without this frame of reference, the criteria for comparison would be circumspect.

Evaluation

Evaluation, a continuous process, is used to determine the extent to which educational objectives are being accomplished. If evaluation is done without relating to the predetermined objectives, its educational significance has no validity. Therefore, it is essential that the initial step in evaluation be that of stating objectives. (2, 3, 19, 28)

The evaluator must continuously gather data to determine if, in the end, the objectives formerly set have been achieved. (2, 3, 28) If the evaluation methods are to be of benefit to the students, the results of the data must be utilized. Thorndike and Hagen have stated:

> Evaluation of pupil progress is a major aspect of the teacher's job. A good picture of where the pupil is and how he is

> progressing is fundamental to effective teaching by the teacher and to effective learning by the pupil. (19:27)

The evaluation process should not become the end objective but merely a means to an end for "the basic purpose of evaluation is the improvement of learning." (4:iii)

Objectives

The relationship between evaluation and educational objectives has been summarized concisely by the California State Department of Education:

> Evaluation is concerned not only with growth in the basic skills, the traditional 'three R's', but also with growth in the attitudes and knowledge needed for effective living in our American Democracy. (4:01)

Prior to 1918, the emphasis in education was on the acquisition of subject matter. With the formulation of the Seven Cardinal Principles by the National Education Association, came a new philosophy. Personality and character development as well as the acquisition of subject matter became objectives of education. In 1946, the Educational Policies Commission restated the objectives of education as self-realization, human relationship, economic efficiency, and civic responsibility. These objectives are the ones usually utilized today by American educators.

Just as the objectives of general education must be acknowledged so the objectives of physical education must be realized before attempts are made to evaluate individual programs. If physical education is to maintain its educational status, it cannot ignore the objectives of total education in its attempt to construct a sound and valid grading process. It cannot divorce grading from

measurement, or measurement from objectives, for they are all intregal parts of the total evaluation procedure. Voltmer and Esslinger have stated that "it is useless to claim one set of objectives and operate on the basis of another, for the ones upon which one operates are the true objectives." (20:346)

Authorities in the area of measurement and evaluation in physical education generally have agreed on the objectives that should be sought. In 1949, Bovard, Cozens, and Hagman (3) listed neuromuscular skills, physical fitness, and social efficiency as the objectives. Arwood (25) in 1953, stated that the objectives should conform to those of total education: intellectual objectives in knowledge of rules and historic information of activities; physical objectives in skills and fitness; and social objectives encompassing behavior, attitudes, and character. Barrow and McGee in 1964 suggested that the evaluation objectives of physical education should include:

> . . . (1) organic development including fitness, (2) neuromuscular development with emphasis on sports skills, (3) knowledges and understandings concerning sports and exercise, and (4) social learnings involving sports with emphasis on sportsmanship. (2:23)

Measurement

Measurement as a technique of evaluation should reflect the philosophy of the educational system. Some measurement programs do not reflect the total concept of evaluation as they do not provide information concerning all the objectives that the school is attempting to achieve. The reports of such measurement programs regarding student achievement do not include evidence of the

development of effective ways of thinking, desirable social attitudes or work habits. (41) Individual goals and achievement must be sought if learning is to occur and the teacher must, therefore, be competent in evaluating behavior and skills as they relate to the individual's goals. (9)

Hefferman (33) has pointed out that because some educational objectives are not easily measured, it is the responsibility of educators to insure that education does not become dominated by techniques that measure only one portion of the educational objectives. She added that if this responsibility is not taken, the test makers will ultimately determine the curriculum. Other authorities (17, 23, 37) emphasize that this is a problem that must be faced if evaluating and reporting student progress in achievement is to include the areas of attitude, human relationship and behavior.

Measurement has been applied to social, physical and intellectual perimeters. Each of these perimeters is reflected in physical education processes. The physical education profession is faced with the same sort of controversy regarding subjective and objective measurement as are the other educational subjects. Physical educators must measure intangible objectives in a subjective manner as well as deciding how to measure physical activity achievement.

Social Measurement

In 1939, McCloy (10) in writing about evaluation in physical education, stated that character ratings relate to attitudes,

habits, and conduct and should be used for guidance purposes. Bovard, Cozens and Hagman (3) in 1949 concluded that the grades representing subjective opinion regarding attendance, interest, effort, improvement, and conduct were inconsistent with the philosophy of that time and should be discontinued. In 1963, Gustafson agreed with the philosophy of McCloy and Bovard and emphatically added:

> Until sufficient evidence is developed to support the claim that physical education can make a unique contribution to social development, the writer cannot accept any of its elements such as attitude, sportsmanship, citizenship, or cooperation as legitimate evaluation criteria. (31:173)

He concluded that social development is either a concomitant of natural growth or is incidental to physical education instruction and that until the profession learned this fact, the criticisms of physical education's contribution to education would continue to increase in intensity.

On the other hand, there are authorities who believe that the development of social-efficiency should be included in the evaluation of student progress and achievement. (6, 7, 8, 20, 22, 23) Hughes and French (7) stated that this subjective evaluation must be done carefully and that the mark must be representative of all the student's growth. Voltmer and Esslinger (20) cited the fact that physical education is education through the physical and not of the physical and that the grade should be based on all the profession's stated objectives. Kozman, Cassidy, and Jackson (8) have said that we cannot ignore the immeasurable, for they are the components that are most important for a student's happiness in life.

Libia and Loy (36) reported that the social and behavioral aspects should be reported to the parents, but that they are not true reflections of achievement in the physical education program. They suggested a tri-system of reporting measurement outcomes. The first section would be for achievement, second for evaluation of social and personal health aspects, and the third section would show improvement.

Skill Measurement

With reference to the various methods of measuring the success of physical objectives, most suggestions have been related to the achievement of activity skills. It has been pointed out that subjective measurement of skills is impossible as there are too many factors involved in order to be accurate in judgment. The evaluator would have to have a perfect image concerning reaction time, coordination, judgment, and complete knowledge of the fundamentals of that activity. (30) Class size might also hinder the reliability and validity of the subjective judgment. In 1958, Williams, Brownell and Vernier (23) pointed out that standardized tests for all activities had not been developed. They believed that a combination of subjective and objective measurements would be the most reliable when they complemented each other. They also stated that because observation does not lend itself to letter or number conversion, the subjective measurement should be reported as good, fair, or excellent.

With relation to the physical objective as measured by skills, some authorities have suggested that measurement should

reflect the individual student's area of effort and improvement. This is called relative measurement. The use of relative grades based upon improvement was advocated in the 1930's by Spindler (40) and McCloy. (10) Spindler explained that this type of grade was an incentive towards better learning as it provides the student with self-motivation. In 1963, there was reference to the adherence to the "whole" child philosophy and the advocation of the relative method of grading by Cowell and Schwehn. (6) However, Broer (28) in 1959 pointed out that individual improvement is difficult to measure. This theory was supported by McCraw (37) who cited the fact that much research had been done concerning the problem of interpreting improvement and that no satisfactory or practical method had emerged. He felt that, for this reason, the grade should be first determined by the absolute achievement of the objectives sought and then adjustments made on the bases of improvement.

Intellectual Measurement

As physical education broadened its objectives to meet the broader scope of the educational objectives, there was evidence of a need for planned teaching of knowledge and also a need for assessing the degree to which this knowledge had been learned. (18) The knowledge being evaluated generally included:

> . . . rules and principles of games, history and development of sports, the background of dance in its various forms, the therapeutic values of exercise and activity, the philosophy behind physical education and recreation in its many facets. (16:252)

Barrow and McGee have stated that the learning of the:

> . . . 'how's' and 'why's' enhance the performance and consequently justify the teaching and the assessments of knowledges and understandings. If they are important to the physically educated person, then they must be part of the instructional program and so a phase of the measurement program. (2:357)

To ascertain the extent of learning on the part of the student, various approaches are used: observation in play; oral responses from individual or group discussion with students during or between activities; and the written knowledge test. (16)

Class size seems to be a deterrent to some form of knowledge testing. It has been suggested by Stroup (18) that neither the oral response nor observation type evaluation lends itself to practical evaluation in large size classes. It is also difficult to cover the wide range of knowledge that should be evaluated when the classes become too large. The most practical method of testing large numbers of students with regard to knowledge is the written test. The written knowledge test can be used to assess the student's level of ability at the beginning or end of a unit, for classification into ability groups, to diagnose weak areas in both learning and teaching, and for motivation towards further learning. (5, 16, 34) Although there appears to be a variety of uses, Hennis (34) pointed out that the most predominant use of the written test is for determination of student progress or achievement.

Knowledge test construction tends to be "spontaneous" and "original" on the part of each teacher due to the fact that relatively few standardized written physical education tests have been developed. It is for this reason that physical education

teachers should be familiar with the principles of constructing and administering valid and reliable knowledge tests. (16)

Reporting Student Progress

Once measurement has been carried out, the results must be related to the student if learning is to take place. One method of relating these results is through the use of grades. Here there are inconsistencies in relation to evaluation principles. Most physical education programs do not name attendance as an objective but include it in computing grades. (31) By using such "tangibles" in computing grades, the only purpose served is that of motivation. The student is motivated to attend and participate in class because of his fear of making a poor grade. The grade has become the end objective for the student. (8)

The heavy weighting of such factors as attendance, "dressing out", tardiness, showers, and costume have been said to be the bases for many ineffective grading systems in physical education. (8, 27, 29, 31) Callon (29) pointed out that many teachers feel a need to have definite evidence upon which to base their grades. However, it has also been reported that physical education has one of the poorest methods of measurement of all school subjects, excluding possibly music. (30)

In 1931, Spindler (40) stated that attendance in physical education is compulsory by state law and should not be used as a grading factor as it does not indicate successful participation in class. Mathews (11) in 1963 stated that some teachers feel attendance should be part of the social grade while others appear

to support Spindler in that attendance is something that should be required and not graded. Mathews added that some teachers feel that "uniform" is a required factor and believed that such a factor should also be excluded from the grade criteria.

The amount of time spent on accomplishing an objective is the determining factor in deciding where the most weight should be placed. Authorities, in general, are agreed that the greatest weight should be placed on the skill objectives. The greatest amount of class time is usually given to the development of physical skill. (28) Bovard, Cozens, and Hagman (3) and Broer (28) agreed that the grade in physical education must be based on the value or weight placed on the objectives of the program. This weight could change from activity to activity as pointed out by Hughes and French (7) and Reid. (44) The weighting of various factors is directly related to an individual teacher's philosophy concerning the relative importance of the physical education objectives. (27)

Grading

Although there are many uses of evaluation, the concern of this study is primarily with the usage of evaluation in assessing grades and the reporting of pupil achievement. Generally, grades can serve the student, the parent, the teacher, and the administrator. Grades resulting from the evaluation process can show the student how he ranks in a group or how he is progressing according to his ability. Theoretically, grades help to motivate the student to learn or to plan for the future. Grades serve to

tell the parent the progress, success or regression/failure the child makes in school. A teacher uses grades to determine student or class progress and thus grades can aid in program planning. Schools make use of grades in various ways. They are used for guidance, honor awards, promotion, to show achievement, and for curriculum planning. Barrow and McGee (2) explained that grades, as they affect the student, are educational indexes that should enable the student to ultimately understand his position of competency. Grading should not be the sole or most important usage of evaluation for when evaluation becomes this limited, a distorted concept of evaluation may occur. (15)

Boyd (27) has stated that although grade assignment is not necessarily synonymous with evaluation, an effective grading system usually exists where there is effective evaluation. Yauch in 1961 reported that ". . . after nearly 50 years of research and study, no commonly accepted system of marking school achievement has emerged." (42:58) He cited the fact that during the last twenty years, very little had been learned concerning the problem of grades and how to report them to the parents.

The assigning of grades is a debatable subject but as Bookwalter (26) pointed out, it is a function of the school and should be done properly and with understanding. Much of the confusion about grades is due to the fact that grading has many purposes and that no one definition exists that will encompass all the factors involved. (32)

Abernathy and Zirbes summarized the main function of grade assignment and at the same time pointed out the dilemma that exists. They stated:

> At best marks are but symbols of value judgments derived from some evidence about a partial growth toward the goal. At worst, marks become the goal with consequent distortion of value on the part of the learner. (1:322)

Grades should be a way of interpreting progress to each student. If the student has not been presented with means of interpreting the grade, the meaning of the grade is negated. (35) Thorndike and Hagen (19) explained that marks are relative judgments. What is an "A" to one teacher is not necessarily an "A" to another. The fact that there is no universal frame of reference for any grade causes a problem of interpretation for both parent and student. An individual school system needs to set the criteria for the "A", for the "B" and for all the rest of its given grades. Remmers, Gage, and Rummel (13) felt that in an effort to define a marking system, the school may produce a uniform grading process among teachers and thus some uniformity in understanding by the student and parent. Once the student is capable of understanding the significance of the grade, the more able he is of interpreting it to his parents. (1)

In the interpretation of a grading system, the teacher must include his philosophy of grading. He should decide before measurement whether or not the grade will be based on the student's own potential, his standing with his peers, or on a preset criteria. This philosophy should be discussed with the students. (19) Jensen remarked that:

> If the mark is not accurate and justifiable, and if it has a weak basis, then it loses its value to the student. It may even destroy incentives and interest and result in poor attitude toward the subject and teacher. (35:97)

At all times, grades should be valid, reliable and timely. The inherent function of grades to act as motivators is lost if grades are not meaningful for a given situation. (34)

Schwartz and Tiedman have suggested that the results of poor evaluation can cause undesirable consequences:

> All too frequently evaluation is considered a step in the teaching cycle that comes at the end of a chapter, unit, or semester. This concept assumes that the major use of the tools of evaluation is to measure the end product and to provide the teacher with information so that appropriate grades can be awarded. Unfortunately, this limited concept of evaluation has resulted in patterns of student behavior-cheating, dishonesty, and fear that defeat the essential purpose of education. (15:413)

Grading in physical education has not always been understood nor has it reflected the objectives of the discipline. Bookwalter (26) in 1936 stated that poor marking was common in the physical education field and also that inaccurate marks destroy the student's value of incentive and/or interest. Mathews (11) in 1963 pointed out that grading practices used in physical education must develop a sound marking system which can be used as a medium for clarifying the aims of a program and of the profession. He suggested that many administrators are unfamiliar with the purpose and value of the physical education program and, therefore, assign a method of recording grades that is impractical or educationally unsound.

Adams (43) in his study, "Principles for Determining High School Grading Procedure in Physical Education for Boys," reported

that it appeared that only twenty-five per cent of a student's grade usually correlated with the objectives sought.

Arwood (25) used the terms "inconsistent," "careless," "partial," "uncertain," and "indifferent" in describing the physical education marking system. He added, however, that although physical education teachers will continue to devise their own system of marking just as other educational areas do, they should adhere to the principle that a marking plan must be based on a sound philosophy which makes a sincere attempt to evaluate student achievement.

Reid, in a speech given at the 1967 Southern District Convention of the American Association of Health, Physical Education and Recreation, stated the principles that should be adhered to in evaluation and grading practices:

1. Restudy and restate course objectives in light of the philosophy of the profession, the particular department, and school in question.
2. Make our expectations clear to students, parents, and other 'publics' at the beginning of the course.
3. Depart from the traditional grading practices even at the loss of popularity for a time.
4. Take seriously the responsibility for teaching attitudes and appreciations which are not necessarily reflected in the grade.
5. Use the best tools and techniques of evaluation for determining achievement in specific areas. (44:04)

Methods of Reporting Student Progress

It has been traditional to report the individual's achievement to both students and parents. The report card has been the

primary method of informing parents about a student's progress. (6, 12, 13, 15, 19)

A longitudinal study concerning the value of a report card system was done by Wrinkle (24) beginning in 1932 and terminating in 1942. In this study, he concluded that the only purpose served by report cards is that of motivation. He felt that grades which do not allow for individual ability and effort tend to discourage the poor student. He supported the theory that grades become an end objective rather than the means. Yauch in 1961 concluded:

> Teachers have long objected to the narrow basis for grading - that of reporting solely on the academic achievement of learners. They have justifiably felt that success in school is determined by more than ability to achieve in subject matter. Since a report card represents one of the more important devices by which a school visibly demonstrates its major objectives, it should provide an opportunity to indicate the broader scope of objectives through the marking system. (42:50)

There are various ways of recording the achievement of the school objectives. These various methods of recording grades include: the 100 point scale or percentage, the pass/fail or satisfactory/unsatisfactory, and the A, B, C, D and F or the five point scale. (13) Another means of reporting achievement and providing communication with the parents is the use of either the parent-teacher conference or the written report which describes objectives and the individual's accomplishment of these objectives. (9)

Some of the disadvantages of the A-F system are reported to be: no fixed standards for interpreting the meaning of the grade and the grade then becomes the end rather than the means (24);

a single grade for describing accomplishment in a broad subject-matter area (19); and the grade discourages the poor student and at the same time does not motivate the bright student to work to his potential. (24)

A disadvantage of the pass/fail or satisfactory/unsatisfactory system is that it classifies into only two groups and does not define status, achievement, or retrogression. (11, 19) One advantage is that under this method, the grade does not become the end goal. (24)

The advantage of the parent-teacher conference is that it creates a two-way communication between parent and teacher. (12, 19) A disadvantage of both the written report and the parent-teacher conference is that it is time consuming and necessitates skill on the part of all teachers to carry out the procedure. (19) An additional disadvantage of the parent-teacher conference is that it leaves no report for the school file. (24)

Physical education has utilized all the various types of grading: the traditional A-F or five point system, percentages, the pass/fail or satisfactory/unsatisfactory, or an informal letter to parents which lists objectives for each activity or unit and the progress that is made by the individual student. (7)

In trying to solve the problem of grading in physical education, the pass/fail and satisfactory/unsatisfactory systems have been substituted for the traditional methods in some schools. (37) Mathews (11) and Willgoose (21) cited that under the pass/fail system, very few students ever fail in physical education. This

type of grade does not discriminate quality of performance and many times is based on the tangible items such as uniforms and attendance.

There is agreement that physical education should receive the same type of grade as do other school subjects. (7, 11, 23, 38, 40) Sanborn and Hartman (14) in presenting the pro's and con's surrounding the question as to whether the grade should be analogous with the rest of the school's marking system stated that when a different grade is used, it sets physical education apart from the rest of the educational system which results in a loss of dignity and status for physical education. Also that the traditional method of grading has resulted in good public relations and understanding by the parents and educational authorities. However, Sanborn and Hartman also pointed out that those teachers that felt that the grade need not be the same as the rest of the school reached this conclusion because they felt that physical education was a different field although part of the total curriculum. They believe that physical education has numerous objectives making grading difficult, which might allow physical education to take the lead in presenting a more valuable grading system.

Price (39) developed a physical education report card that he felt met all the principles of good evaluation. The report card included performance and achievement, provisions for student needs on different ability levels, information to parents about the school's philosophy, the course objectives, content methods and finally social behavior and personality development. He advocated that the evaluation of the student be done objectively for achievement and skill and subjectively for social and personality growth.

Latchaw and Brown (19) have stated that marking is perhaps the greatest single problem in education. Grades become the ends rather than the means because teachers confuse evaluation with grading. It is important to note that Latchaw and Brown posed the possibility of abolishing grades in order to eliminate the confusion that exists. They emphatically suggested that all those concerned with educational evaluation should focus on learning and not on grading as a motivator for learning.

Summary

Grading is one usage of the total process of evaluation and although not the most important, it has developed into probably one of the greatest single problems in current education. The confusion, controversy, and inconsistency that surrounds the process of grading lies not within the principles of purposeful evaluation but rather within the varying opinions of individuals as to which should be the most reliable and valid method used in achieving meaningful evaluation.

Grading in physical education seems not to have improved during the last three decades. Many of the complaints and inconsistencies that existed thirty years ago still exist today. The concept of learning through movement or activity is unique to the field of physical education and has magnified the problem of evaluation and grading to a greater extent than that in any other educational field.

Although authorities agree on the objectives sought by the physical education profession, a controversy exists as to whether

the evaluation should be based solely on physical or skill achievement or whether it should encompass physical, social, and intellectual achievements. The main disagreement lies in the realm of social and behavioral development. Even those who agree with the "whole" child philosophy, question whether they have the right to measure and grade social and behavioral development. They question the ability to measure the immeasurable. Others contend that they must measure the social aspect if our grading practices are to encompass the main educational objectives and if we are to measure the student's total growth. However, many others contend that the use of tangible items such as showers, uniform, and attendance is not a valid index of social development. The fact that skill is the main criteria for measuring physical achievement also raises the question as to whether this measurement can be done through subjective evaluation by the teacher. Some contend that the number of factors involved and class size affect the validity of such measurement.

The concept of relative grades also magnifies the grading problem in physical education. Should evaluation take place in terms of absolute achievement or should it be a relative decision in which each student is graded according to effort or improvement? Can such be validly measured? What is an "A" in one class is not necessarily an "A" in another. A main criticism of all grading programs is that there is no universal reference for a grade and, therefore, no allowance for accurate interpretation by the student or parent. Without reliable interpretation, the value of grades can become distorted.

It is agreed in the physical education profession that the objective receiving the greatest weight when determining the grade should be that of physical or skill achievement. Authorities, however, also state that the importance of the objectives should determine the weight; therefore, the main objective could vary from teacher to teacher and from activity to activity.

Again adding to the numerous problems inherent in existing grading practices is the fact that there are also various methods of reporting student achievement. The methods vary from school to school and range from stating the grade as "A" to "F" or pass/fail to either a written report or a parent-teacher conference. Each of these methods has disadvantages and only add to the student's confusion concerning grades and their meanings. This problem could be magnified when physical education uses a different grade than does the rest of the school.

The main criticism of any grade is that it usually becomes, to the student, the end goal rather than being an interpretation of achievement towards set goals. The grade, because of its motivating powers, has caused the student to lose the proper perspective of the full meaning of the grade and ultimately of learning.

At the present time, there seems to be no answer for solving the existing problems aside from the total abolition of grades. However, as long as measurement and grading are practiced, the evaluation process and the resulting grade should reflect the achievement of objectives sought. This is the basis of all purposeful evaluation.

CHAPTER IV

PROCEDURES

The data for this study were obtained through the use of a questionnaire. A survey of the existing literature pertaining to evaluation, measurement, grading practices and principles, and the basic physical education objectives as they pertain to evaluation supplied the information needed for the construction of the questionnaire.

Construction of Questionnaire

The questionnaire, a copy of which may be found in the Appendix, was divided into five main sections: general information, report card information, evaluation, grading factors, and objectives. These five sections were chosen in order to: (a) survey the existing evaluation and grading procedures of the selected sample, (b) obtain information that could be used in comparisons when attempting to determine if there were any intrinsic or extrinsic factors affecting areas of the evaluation process, and (c) determine if objectives correlated with evaluation techniques.

The first section on General Information concerning the school plant, teacher qualifications and experience, physical education class structure and activities taught was used to obtain background information which would add to the general description of the selected sample answering the questionnaire. This section

also provided many of the extrinsic factors used for comparison with the evaluation and grading procedures. The second section on Report Card Information was used to ascertain the methods of reporting student achievement and the general usage of the student's grade. The third section on Evaluation contained questions pertaining to information dealing with the general and specific methods of evaluation. The fourth or Grading Factors section was designed to ascertain the factors used in arriving at a student's grade and also to determine the percentage value placed on the Skill, Knowledge, and Behavior-Attitude areas by the teacher in arriving at the student's grade. The final section consisted of a series of open-end questions pertaining to the objectives of the physical education teacher.

Before mailing the questionnaire, it was given to eight high school women physical education teachers in Guilford County, Greensboro, North Carolina and to eight physical education graduate students at The University of North Carolina at Greensboro. Six of the graduate students had previously taught from one to seven years. The sole purpose of this preliminary distribution was to determine the ambiguity and functioning of the questions.

Selection of Sample Schools

In order to obtain information concerning the physical education grading and evaluation practices of a selected sample of schools, it was first decided to be concerned only with those procedures as practiced in girls physical education programs. It was then decided to send a questionnaire to chairmen of girls

physical education departments which were members of the New Jersey Athletic Association for Girls. The New Jersey Athletic Association for Girls (N.J.A.A.G.) is an association open to all public, private, and parochial junior and senior high schools in New Jersey. A list of the member schools of the N.J.A.A.G. was obtained from one of the participating member schools. The list was based upon membership as of June 1966. From the list of 157 member schools, 135 schools were chosen to be part of the selected sample. Twenty-two of the original 157 member schools had been eliminated because their title indicated that they were junior high schools which had only grades seven through nine. It was the intent of the writer to use only schools which would encompass grades nine through twelve. All remaining schools had "high school" in their titles, and encompassed various grade level combinations. The grade levels of the schools that were finally used in the selected sample were seven through twelve, nine through twelve, ten through twelve, eight through twelve, and six through twelve. In the selected sample that received questionnaires, there was a total of seven parochial schools, a few private schools and the remaining were all public schools.

The schools' geographical locations within the state of New Jersey had been previously designated by the N.J.A.A.G. In the selected sample these areas were: central district, forty-nine schools; eastern district, nineteen schools; northeastern district, thirty schools; northwestern district, twenty-one schools, and the southern district, seventeen schools. However, in the distribution of the questionnaires, no method was devised by which the geographical representation of the responding schools could be determined.

Distribution and Return of Questionnaires

On April 12, 1967, the questionnaires were mailed to the prospective 135 schools and the respondents were asked to return them by May 1, 1967. Enclosed with the questionnaire was a self-addressed, stamped envelope and a cover letter explaining the general purpose of the study. The teachers were informed that their signature was not necessary unless they wished to receive information regarding the results of the study. This procedure was followed hopefully in order to increase the number of returns. On May 6, 1967, a follow-up post card was sent to schools requesting the respondents to return the completed questionnaire if they had not already done so. Due to the fact that the respondents did not have to sign their names or the name of the school, these follow-up post cards were sent to all schools on the list. A copy of the questionnaire, cover letter, follow-up post card, and a list of the schools can be found in the Appendix.

All questionnaires returned by June 5, 1967, were used in the study. Sixty-eight, or 50 per cent, of the original 135 schools returned the questionnaire by the deadline date. Of this 50 per cent, seven responding schools were eliminated because their questionnaires were incomplete. Sixty-one, or 45 per cent, of the original 135 schools were used in this study.

Treatment of Data

In order to achieve the purposes set forth in this study, the information obtained through the use of the questionnaire was first tallied according to the requested question. (See Appendix) A series

of twenty-two conceptual questions was then devised in order to make comparisons between the various facets of evaluation and factors, either intrinsic or extrinsic, that might have an effect on the modes of evaluation. These twenty-two questions are presented in the Analysis of Data.

Due to the range of possible answers for each question, it was decided to group some answers into broader categories. This was done so that interpretable information could be obtained for use with the twenty-two questions previously formulated. The method of grouping was based on the numbers involved, similarities within responses, and judgment on part of the writer as to possible differences that could result.

In the process of grouping, it was found that several areas still would not function in the way they were originally designed. Too many categories would still exist within the question. The three areas concerned were written tests, method of evaluation, and co-educational activities. Originally, the exact activity was to be checked by the respondent in each of these areas; however, it was decided that the questions would function better if grouped according to the number of tests given, team sports and individual sports, and co-educational/non-co-educational programs, respectively.

In consideration of the structural grade levels of the schools, it was discovered that three schools fell outside the range classifications given to all other schools. The basic grade level classifications were seventh grade through twelfth grade, ninth grade through twelfth grade, and tenth grade through twelfth grade. Of the three schools that fell outside of these classifications, two were grade

levels eighth through twelfth and one was sixth through twelfth. Rather than eliminate these three schools from the sample, it was decided to classify them as "other" and to use the information obtained from these schools in all comparisons except when it concerned the structural grade level. An exception was made to this rule, however, when the total sample was being compared against the various grade level structures.

The following areas were not included in the comparison questions as there were not enough existing differences: type of high school, area of academic concentration with respect to teacher's degree, classes scheduled according to skill or grade level, passing physical education every year as a graduation requirement, type of grade used to record progress being different from other academic subjects, boys receiving same type of grade as girls, and present method of recording grades.

It was necessary to construct an open-end question concerning the objectives sought by the respondents in order to elicit a reliable response. In order to validly organize the objectives into their proper classifications of skill, knowledge, and behavior, a list of the various stated objectives was given to five physical education teachers, with at least five years experience, for classification. These classifications and those of the writer were then tallied. The most frequently assigned classification was then given to each objective. A copy of the list of stated objectives, rating instructions and the judges' ratings can be found in the Appendix.

Once all groupings were complete and the numbers tallied, the twenty-two conceptual questions were employed. In order to use and

analyze the questions, percentages were computed. All percentages were rounded to the nearest whole number. From these percentages, the differences and similarities that appeared to exist within each comparative question were ascertained through the use of empirical judgment.

After the analysis was completed, an evaluation profile was constructed showing the similarities and differences existing within the evaluation process, as indicated by the selected sample.

CHAPTER V

PRESENTATION OF DATA

Questionnaires were mailed to 135 chairmen of girls physical education departments. These departments belonged to the New Jersey Athletic Association for Girls. A 45 per cent return was realized in that sixty-one schools responded with questionnaires completed enough to be used in this study.

All schools did not answer all questions and, therefore, the number of respondents varies from question to question. It is essential that one refer to the tables and numbers (N) involved when reading the data. (See Appendix)

General Information Concerning Selected Sample

School plant. The selected sample was composed almost entirely of public schools. Only one respondent represented a private school. All remaining schools were representatives of public schools.

A majority of the schools had a structural grade level of ninth through twelfth grade inasmuch as 59 per cent of the respondents fell into this category. Schools with a structural grade level of tenth through twelfth grade were represented by 23 per cent of the sample; 13 per cent were schools with grade levels of seven through twelve and three schools or 5 per cent were classified as "other." This classification included two public schools with grade levels of eight through twelve and one

private school with a grade level structure of six through twelve. Slightly less than half or 45 per cent of the sample had 400-600 girls enrolled in the school; 11 per cent enrolled 100-400 girls; 18 per cent enrolled 600-800; 20 per cent had an enrollment of 800-1000 girls, and 5 per cent enrolled over 1000 students.

The teachers. Bachelor degree teachers constituted 66 per cent of the sample and of that percentage, 95 per cent had their degree in physical education. Of the 34 per cent who had master's degrees, three-fourths had their master's in physical education. More than half of the teachers had received their last degree during the past ten years with 42 per cent receiving the degree within the last five years and 25 per cent receiving it six to ten years previously.

More than one half of the teachers, or 65 per cent had been teaching from one to ten years with 34 per cent teaching from one to five years and 31 per cent of the respondents teaching from six to ten years. There were 34 per cent of the sample who had been teaching for eleven years or more. Of this number, 13 per cent taught eleven to fifteen years, 13 per cent from sixteen to twenty years, 5 per cent from twenty-one to thirty years, and two respondents had been teaching for over thirty years.

It was computed that 80 per cent of the responding teachers had been teaching in their present school from one to ten years with 54 per cent of this amount teaching in that school from one to five years and 26 per cent from six to ten years. It was also ascertained that 18 per cent had been in their present school from eleven to twenty years with 11 per cent teaching there for eleven

to fifteen years and seven per cent teaching in their present school from sixteen to twenty years. One teacher had been in her present school for over thirty years.

More than one half, or 62 per cent, had been teaching physical education from one to ten years with 32 per cent of this amount teaching physical education from one to five years and 30 per cent from six to ten years. Slightly over one-third of the total sample had been teaching physical education for longer than ten years with 18 per cent having taught for eleven to fifteen years, 10 per cent for sixteen to twenty years. There were only five respondents who had been teaching physical education from twenty-one to thirty years and one teacher who had been teaching for over thirty years.

Physical education class structure. An average class size of thirty-one to fifty students was being taught by 67 per cent of the total sample with 37 per cent of this amount having a class range of thirty-one to forty students and the remaining amount having forty-one to fifty students. The average class size for 13 per cent of the sample was fifty-one to sixty students. Only 12 per cent had over sixty students and only four schools had twenty-one to thirty students. There were no respondents who had less than twenty students in their classes.

The most common number of days that classes were scheduled each week regardless of grade level structure was three or five days. Classes that were scheduled three days per week were being taught by 39 per cent of the sample and 32 per cent taught classes scheduled five days each week. One school had classes scheduled

one day each week; six schools met their classes for four days; five schools met them for two days and five schools had a schedule that varied with the grade level or with scheduled health classes.

It would appear that the average teaching time is thirty-five minutes. Over two-thirds, or 66 per cent, of the sample had classes that were being taught for thirty to thirty-five minutes. Of this amount 28 per cent taught for thirty minutes and 38 per cent for thirty-five minutes. Slightly under one-fifth of the sample taught their classes for forty minutes and 8 per cent taught for twenty-five minutes.

Most physical education classes were not scheduled according to skill inasmuch as 93 per cent of the schools scheduled classes according to grade level. Co-educational classes were scheduled in 38 per cent of the responding schools. The range of co-educational activities scheduled was from one to six activities during the year.

Report Card Information

Method. The A-F system was the most commonly used method of reporting a student's grade in physical education. Of the responding sample, 79 per cent indicated that they used the A-F system; 8 per cent utilized the five point system; four respondents stated that they used a percentage method; two respondents used either the pass/fail (P-F) or the satisfactory/unsatisfactory (S-U) method and two schools utilized the three point method of recording grades. This three point method consisted of either honor/average/unsatisfactory or outstanding/pass/fail symbols. The same

method of recording grades in other academic subjects was used in physical education by 93 per cent of the total sample.

The six and eight week marking period was used by 30 per cent and 28 per cent respectively. The nine week marking period was utilized by 19 per cent and 21 per cent made use of a ten week marking period. The physical education grade was issued to the student every marking period in 97 per cent of the schools and 93 per cent indicated that they used the same method of reporting the girls physical education grade as did the boys.

Most methods of recording grades are determined by the administrations of the responding schools since 67 per cent indicated that the method used was an administrative decision. Physical education teachers determined the recording method in 20 per cent of the schools and 13 per cent used a combination of administrators and physical education teachers in arriving at this decision.

A space for checking or rating students on attitude, behavior, personality development, or work habits was used by 57 per cent of the schools and 43 per cent stated that no such space was provided on the report card. The method of reporting grades in physical education was changed by 25 per cent of the sample during the last ten years. Of those that did make a change, 93 per cent agreed with the type of change.

General information. A passing grade in physical education as a graduation requirement existed in 97 per cent of the responding schools. The grade was also used in determining a student's honor roll status by 68 per cent of the schools and 65 per cent

made use of the grade in computing a student's overall grade point average.

No failures in physical education for the previous year were indicated by 46 per cent of the schools and 54 per cent stated that they did have failures during that time. The range of failures was from one per cent to 6 per cent of the teacher's total class enrollment during that period.

The method that teachers were presently using to record a student's grade for physical education was indicated as being the best method of evaluation by 85 per cent of the sample.

Evaluation

Overall methods. Objectives for each activity were discussed by 77 per cent of the schools while 20 per cent only discussed objectives occasionally. Although only 7 per cent of the teachers gave the student an opportunity to state the grade he thought he had earned prior to his receiving the teacher's grade, 73 per cent did discuss any discrepancies between the grade assigned and the grade expected by the student.

Although thirty-eight schools said they scheduled conferences concerning low grades in physical education, fifty-three schools indicated that some form of conference was held when the respondents answered the question pertaining to who held such conferences. When conferences were scheduled, 45 per cent of the sample indicated that these conferences were held by physical education teachers, 13 per cent indicated guidance counselors, and 38 per cent utilized a combination of guidance counselors and physical education teachers.

The evaluation of the student was not used for any purpose other than for grading by 60 per cent of the sample. The evaluation results were used for school clubs and honors by 22 per cent; 13 per cent made use of the results for guidance and college purposes and only three schools utilized the results within the physical education class or program.

Specific methods. Written physical education tests were administered throughout the year by 84 per cent of the schools. Written tests ranging from one to six in number were given by 43 per cent of the teachers and 41 per cent administered seven to fifteen tests throughout the year. The fact that there were no written tests given during the year was reflected by 16 per cent of the sample.

In the evaluation of team sports, it was found that standardized skill tests, either alone or in conjunction with another method, were used by 20 per cent of the schools; 50 per cent of the schools used self-devised tests and the subjective rating based on teacher's judgment was used by 30 per cent of the sample. In the evaluation of individual sports, it was found that 28 per cent utilized the standardized skill test; 64 per cent used the self-devised test, and the subjective rating was used by 57 per cent.

Grading Factors

Specific. The Behavior-Attitude category used in grading a student received the highest mean percentage weight by the sample. The mean percentage for this category was 45.56. Rules-Regulations

and Participation sections which made up the Behavior-Attitude category received a mean percentage weight of 22.20 and 23.55 respectively.

The main category of Skill Factors received the second highest percentage weight by the sample. The mean weight was 31.73 per cent. Motor Skill and Physical Fitness which composed the Skill Factor category received a mean percentage weight of 27.20 and 5.48 respectively.

The Knowledge Factor category received a mean percentage weight of 27.34. The subdivisions of this category received 18.93 per cent and 8.02 per cent for Skill Knowledge and General Knowledge respectively.

Although there was a variety of predominate factors used in arriving at a final evaluation in each of the areas mentioned above, it appeared that the predominate factor used most frequently in determining skill progress was the self-devised skill test. Knowledge was determined most frequently by evaluating the student's written knowledge of rules. Behavior was evaluated most frequently by a student's clean uniform and punctuality.

General information. A combination of achievement, effort and improvement was used by 55 per cent of the sample in determining a student's grade. Effort with achievement was used by 25 per cent in this decision. The remaining schools used either improvement combined with effort or achievement or they used only one of the three categories in determining a student's grade.

All grade levels are evaluated in relatively the same manner by 98 per cent of the sample. The same percentage value was placed

on skill, knowledge, and behavior regardless of the type of activity by 91 per cent of the total sample.

A student could fail for the marking period regardless of skill and knowledge ability if they did not follow a prescribed set of rules and regulations in 26 per cent of the schools. A set number of times that a student was not prepared for class could also fail a student in 26 per cent of the schools.

Objectives

The most frequently sought objectives as stated by the sample were determined by the frequency with which they were stated by the total sample. Skill objectives were stated 28 per cent of the time. Knowledge objectives composed 12 per cent of the listed objectives. Objectives indicating behavior were listed 29 per cent of the time. Objectives considered to be non-gradeable made up 31 per cent of the listed objectives as stated by the sample.

Class size was indicated by 53 per cent of the sample as a factor that hindered their achievement of objectives. Other hindering factors listed were facilities and equipment, gym space, field space, time scheduling, and attitude of the school.

CHAPTER VI

ANALYSIS AND INTERPRETATION OF DATA

The purpose of this study was three-fold:

1. To survey the existing girls physical education evaluation practices as they relate to grading in a selected sample of New Jersey High Schools;
2. To ascertain whether the evaluation practices were influenced by identifiable factors;
3. To ascertain possible relationships among teacher objectives and grading procedures.

In order to obtain information dealing with evaluation and grading practices, a questionnaire was mailed to 135 selected girls physical education departments in the New Jersey area. The information used in the analysis of data is based on a 45 per cent return of those questionnaires.

Due to the limited number of returns, it is essential that one refer to the numbers (N) when reading the data. It must also be remembered that all responding schools did not answer all of the questions and, therefore, the number of responses varies from question to question. It is also necessary to point out that some of the questions on the questionnaire elicited more than one response on the part of the respondent and, therefore, the total number for some questions would appear to be higher than the total number of questionnaires used for analysis.

In order to fulfill the purposes of this study, a series of twenty-two questions was employed. The questions used were:

1. What are the identifiable factors that affect the use of the physical education grade in determining a student's overall grade point average and/or honor roll status?

Comparative Areas

General Information
- a. structural grade level of school
- b. education of the teacher
- c. physical education teaching experience
- d. class size
- e. number of days a class is scheduled each week
- f. class time

Report Card Information
- a. type of grade used
- b. length of marking period
- c. space for attitude rating

Evaluation Techniques
- a. objectives discussed for each activity
- b. number of written tests given
- c. method of evaluating skill in team and individual (dual) sports

Grading Factors
- a. percentage of grade allocated for skill, knowledge and behavior
- b. reflected objectives

2. What factors appear to influence the incidence of yearly failures?

Comparative Areas

General Information
- a. structural grade level of school
- b. class size

Report Card Information
- a. space for attitude rating

Evaluation Techniques

a. discussion of grade discrepancies
b. conferences for low grades in physical education
c. number of written tests given
d. method of evaluating skill in team and individual (dual) sports

Grading Factors

a. percentage of grade allocated to skill, knowledge, and behavior
b. emphasis placed on achievement, effort or improvement

3. Does the terminal degree of the teacher affect the grading procedure?
4. Does the structural grade level of the school affect the grading procedure?
5. Does the classification of the number of girls enrolled affect the grading procedure?
6. Does the physical education teaching experience affect the grading procedure?
7. Does the class size have an effect on the grading procedure?
8. Does the number of days a class is scheduled for physical education affect the grading procedure?
9. Does the actual class time affect the grading procedure?
10. What is the effect of co-educational activities on grading procedures?
11. Does the length of the marking period affect the grading procedure?
12. Does the use of a space on the report card for rating attitude affect grading procedures?

Comparatives Areas for Questions #3-#12

Evaluation Techniques
- a. objectives discussed for each activity
- b. opportunity for student to state grade he thinks he has earned prior to receiving teacher's grade
- c. discussion of grade discrepancies
- d. scheduled conferences for low grades
- e. who holds such conferences
- f. number of written tests given
- g. method of evaluating skill in team and individual (dual) sports

Grading Factors
- a. percentage of grade allocated for skill, knowledge, and behavior
- b. reflected objectives
- c. emphasis placed on achievement, effort, and improvement

13. Does who determine the method of recording grades influence the evaluation process?

Comparative Areas

Report Card Information
- a. space for attitude rating
- b. use of grade in determining honor roll status
- c. use of grade in determining overall grade point average

Evaluation Techniques
- a. conferences for low grades
- b. number of written tests given

Grading Factors
- a. percentage of grade allocated for skill, knowledge, and behavior

14. What are some factors that might affect the additional use of student evaluation?

Comparative Areas

General Information
- a. education of teacher
- b. structural grade level of school

Evaluation Techniques

a. method of evaluating skill in team and individual (dual) sports

15. What are the predominate factors used in determining: motor skill, physical fitness skill, skill knowledge, general knowledge, rules-regulations, participation?

16. What is the predominate method of recording grades? What percentage of schools have changed their marking system within the past ten years? Which method of recording grades best evaluates a student's work in physical education?

17. Are there any factors making it impossible to achieve objectives?

18. What are the major objectives sought? What are the reflected primary objectives? What happens when these objectives are compared?

19. Does the emphasis of certain objectives sought affect the evaluation process?

20. Does the emphasis of certain reflected objectives affect the evaluation process?

Comparative Areas for Questions #19-#20

Evaluation Techniques

a. discussion of objectives for each activity
b. number of written tests given
c. method of evaluating skill in team and individual (dual) sports

Grading Factors

a. emphasis placed on achievement, effort, or improvement

21. What is the mean percentage placed on skill, knowledge, and behavior in determining a student's grade by the total sample?
22. Are there any rules or regulations affecting a marking period grade?

ANALYSIS OF QUESTIONS

The following is an analysis of each of the twenty-two questions employed.

Question #1

What are the identifiable factors that affect the use of the physical education grade in determining a student's honor roll and/or overall grade point average?

The factors that appear to affect the use of the physical education grade in determining the student's honor roll status and overall grade point average are:

1. the structural grade level of the school,
2. the length of the physical education marking period,
3. the number of written physical education tests administered throughout the school year.

An additional factor which affects only the use of the grade in determining the student's overall grade point average is that of actual class time spent on teaching each period. (See Tables I and II in the Appendix.)

Although most of the same factors influencing the use of the physical education grade in determining the student's honor roll

status also affect its use in determining the student's overall grade point average, the resulting effects are not always the same.

When the structural grade level of the school included seventh through twelfth grades, a remarkable degree of difference was found between this group and schools assigned grade levels of nine through twelve and ten through twelve. Those in the seventh through twelfth grade category used the grade in determining both the student's honor roll status and overall grade point average 100 per cent of the time. Although those schools in the other two categories used the physical education grade in both these capacities often, the degree of difference was not enough to make it a determining factor.

Those schools that had marking periods of 6-7 weeks duration made use of the physical education grade in determining a student's honor roll status to a greater degree than did those schools with marking periods of eight or 9-10 weeks duration. This, however, did not hold true when examining the use of the grade with regard to the computation of the student's overall grade point average. In this instance, the longer, or 9-10 week, marking period tended to use the physical education grade in calculating the overall grade point average more often than did the shorter, or 6-7 and eight week, marking periods.

After dividing the number of written physical education tests administered throughout the year into three main groups, 0, 1-6, 7-15, it appeared that both extremes seem to have some influence on

whether or not the grade is used in determining a student's honor roll status. Although all groups used the grade for this determination, those giving no tests and those giving 7-15 tests tended to make use of the grade in conjunction with the honor roll to a much greater degree than did the middle group which administered 1-6 tests. In determining the effect of the number of written tests on the calculation of the overall average, it was found that those schools where no tests were administered used the grade to determine overall grade point average to a much greater degree than did the other two groups.

Although very little difference was found between actual teaching time and the use of the grade in connection with a student's honor roll status, there was a degree of difference between actual teaching time and the use of the grade in calculating the overall grade point average. The shorter the class time, the greater the use of the physical education grade in this capacity.

It should be pointed out that the physical education grade was used in determining a student's honor roll status and overall average frequently. The factorial differences ascertained lie in the degree to which the grade was used.

Question #2

What factors appear to influence the incidence of yearly failures?

The percentage of yearly failures was determined for each school by taking the teacher's total class enrollment for the previous year and dividing that total into the number of failures

the teacher had for the previous year. The range of failures in percentage was from 0 to 6 per cent. Due to the small range, it was decided to divide the sample into only two groupings - failures and non-failures.

It appeared that the following factors influence the incidence of yearly failures:

1. the class size,
2. the opportunity to discuss grade discrepancies,
3. the scheduling of conferences for low grades,
4. the number of written physical education tests given throughout the year in physical education,
5. the percentage weight placed on the grade to reflect skill. (See Table III in the Appendix.)

The class size categories had been divided into three categories of 21-40 students, 41-60 students, and over 60. It would appear that, to a point, as the class becomes larger, the more often non-failures occurred.

When students were given the opportunity to discuss grade discrepancies or when there were conferences scheduled for low grades, there appeared to be no effect on the incidence of failures as opposed to non-failures; however, when these opportunities were not provided to the students, a slightly higher incidence of failure occurred.

When comparing the failure/non-failure groups against the number of written tests administered throughout the year, it appeared that the greater the number of written physical education

tests administered, the greater the number of non-failure occurrences and inversely, the smaller the number of tests, the greater the occurrence of failures.

Most schools placed either 1-25 per cent or 26-50 per cent on skill when determining a student's grade. It appeared that within these two percentage groupings, the greater the weight placed on skill, the more often failures arose.

It was noted that although not a direct influencing factor, that within the non-failure group, the more often effort was used in determining the grade, the greater the number of non-failures.

Question #3

Does the terminal degree of the teacher affect the grading procedure?

The terminal degree of the teacher seemed to have very little effect on the grading procedure. The only variations found between those teachers holding a bachelor's degree and those holding a master's degree was in the number of written tests given throughout the year and the percentage allocated to reflect behavior. (See Table IV in Appendix.)

After dividing the number of written tests given into three groups, 0, 1-6, and 7-15, it was found that the master's degree teachers fell into the larger grouping much more frequently than did the bachelor degree respondents. It was also determined that the master's degree teachers tended to give zero number of tests much less frequently.

The master's degree respondents tended to place more weight on behavior than did the bachelor degree respondents in determining a student's grade.

Question #4

Does the structural grade level of the school affect the grading procedure?

The structural grade level of the school appeared to affect the grading procedure under the following circumstances:

1. whether or not the student is given the opportunity to discuss grade discrepancies,
2. the scheduling of conferences for low grades in physical education,
3. the number of written physical education tests given throughout the year,
4. the percentage of grade allocated to reflect skill, knowledge, and behavior,
5. where the greatest weight is most often placed in computing a student's grade thus indirectly reflecting the teacher's primary objective. (See Table V in Appendix.)

Although all schools, regardless of structural grade level, more often than not allowed students to discuss the discrepancy that might arise between the teacher's grade and the grade the student thought he deserved, and more often than not scheduled conferences for low physical education grades, the difference is seen in that 100 per cent of the schools with a grade level of 7-12 allowed the discrepancy discussion and 75 per cent scheduled conferences for low grades.

After dividing the number of written tests given throughout the year into three groups, it was discovered that those in the schools with grade levels of 10-12 tended to give the middle range, 1-6, of tests more often, whereas those in the remaining two types of schools used 7-15 tests more frequently.

When comparing the three types of structural grade levels against the percentage of grade allocated to reflect skill, it was found that all schools in the grade level of 7-12 used 26-50 per cent of the total grade to reflect skill whereas the remaining two types of schools used on the average 1-25 per cent.

In considering the percentage of the total grade used to reflect knowledge, it was found that more than half of the schools in the grade level of 10-12 used 26-50 per cent to indicate knowledge, while the remaining two types of schools only used this amount 25 percent of the time and instead tended to allocate 1-25 per cent of the total grade in the reflection of knowledge.

There was no real difference seen in the percentage of the grade used to reflect behavior as the tendency in all three types of schools was to use 26-50 per cent of the grade in this way; however, there did appear to be a few schools in the grade level of 9-12 that used 51-75 per cent and 76-100 per cent of the grade to indicate behavior.

The reflected primary objective of a respondent was determined by finding where the most weight of the total grade was placed. From this it was possible to tell which of the three areas, skill, knowledge, or behavior, would be the primary objective.

Because there were many occasions where an equal amount of weight was placed in two or more areas, the number of responses in each area was computed. It was found that one-half of the responses in the 7-12 structural level placed the most weight on skill while those in the 9-12 and 10-12 structural levels tended to place more weight on behavior.

Question #5

Does the classification of the number of girls enrolled in a school affect the grading procedure?

Each school was first classified according to size by the number of girls enrolled. The schools were then divided into four groups: 100-400 students, 400-600, 600-800, and 800-1000. An additional classification of over 1000 students was not used for interpretation as there were only three respondents.

The following factors appeared to have some effect on grading procedures when the number of girls enrolled was used as the comparative figure:

1. the number of written tests given throughout the year,
2. the method of evaluating individual skill,
3. the scheduling of conferences for low grades,
4. the percentage of the total grade allocated to reflect skill and knowledge. (See Table VI in Appendix.)

After dividing the number of written tests given throughout the year in physical education into three main groups, it appeared that the larger the girl enrollment, from 100-800 students, the larger the range of written tests given and almost

inversely, the smaller the girl enrollment, the smaller the range of tests.

Although all groups tended to schedule conferences, those schools with 800-1000 girls enrolled did so 100 per cent of the time.

All size classifications but one made use of the self-devised tests frequently when evaluating skill in both individual and team sports. The schools with 400-600 girls enrolled tended to use the subjective evaluation slightly more often for evaluating skill in individual sports.

In computing the percentage of grade allocated to reflect skill in each of the size classifications, it appeared that the smaller the girl enrollment the greater the chance of having 26-50 per cent of the grade used to indicate skill and the larger the enrollment the more likely it is that only 1-25 per cent will be used towards skill. The schools with enrollments ranging from 100 to 800 allocated 26-50 per cent while the larger group of 800 to 1000 girls enrolled allocated 1-25 per cent.

In the percentage allocated to indicate knowledge, it was found that the larger classifications of 600-800 and 800-1000 assigned 26-50 per cent, the 400-600 classification assigned 1-25 per cent, and the smallest classification equally divided the percentage assigned so that 1-50 per cent was most frequently assigned to indicate knowledge.

Question #6

Does the physical education teaching experience affect the grading procedure?

It would appear that the following factors are affected by the number of years teaching physical education:

1. number of written tests given throughout the year,
2. where the greatest weight is most often placed in computing a student's grade, thus indirectly reflecting the teacher's primary objective,
3. emphasis placed on achievement, effort and improvement when evaluating skill,
4. percentage of grade allocated to reflect skill. (See Table VII in the Appendix.)

The variable number of teaching years experience in physical education was divided into six groups: 1-5, 6-10, 11-15, 16-20, 21-30 and over 30 years experience. The latter group was not usable for interpretation as there were too few respondents. Comparisons were then made with relation to these groups.

After dividing the number of written tests given throughout the year into three groups and comparing them against the teaching experience, it appeared that the longer one teaches, the greater the frequency of written tests. Those having taught 16-20 and 21-30 years tended to give more tests throughout the year than did those teachers in the first three groupings.

When trying to compare the reflected primary objectives against the number of years teaching physical education, it was

found that although all groupings tended to place their emphasis on behavior when computing the grade, those teaching 1-5 or 16-20 years placed as much emphasis on skill as they did behavior.

When comparing skill evaluation against the number of teaching years experience, it was found that most teachers in the first fifteen years of teaching tended to place more emphasis on effort than they did achievement or improvement; however, those teachers having taught 16-30 years placed an equal amount of emphasis on both effort and achievement.

The percentage of the total grade allocated to reflect skill is affected somewhat by the number of years teaching. Those in the early teaching years, 1-5, and those with a great deal of experience, 16-30, placed more weight on skill than did those teaching 6-15 years. The top and bottom groups placed 25-50 per cent of the grade on skill while those in the middle range only placed 1-25 per cent of the grade on that area.

Question #7

Does the class size have an effect on the grading procedure?

In all but one case, the responding schools were divided into three groups according to class size. The three groups used were 21-40 students, 41-60, and over 60. It was then determined that the class size appeared to have some effect on grading procedures. The factors involved were:

1. the number of written tests given in physical education throughout the year,

2. the discussion of objectives,
3. the percentage of grade allocated to reflect skill and knowledge,
4. those who hold conference for low grades. (See Table VIII in Appendix.)

After dividing the number of written tests administered into three main groups, it appeared that once the class size reached over 60 students, the more often written tests were given. However, those teachers in classes over 60 students used the middle range, 1-6, of written test most frequently while those teachers in small classes, 21-40, tended to use the larger range of test, 7-15 most often.

Although all class size groupings discussed the objectives of their activities frequently, it appeared that the smaller the class size, the greater the chance of discussion of objectives.

Before comparing the percentage of the grade allocated for skill, knowledge, and behavior, it was decided to divide the responding schools into five groupings instead of three. The five groupings used were 21-30, 31-40, 41-50, 51-60, and over 60 students. This was done in order to determine with greater distinction the effect of class size on the percentage of the total grade used to reflect skill, knowledge, and behavior.

After comparing the percentage used to reflect skill against class size, it appeared that the smaller the class size, the more often 26-50 per cent of the total grade was used to reflect skill.

When comparing the percentage used to reflect knowledge with class size, it was noted that although all groups, regardless of size, tended to place 1-25 per cent of the total grade on knowledge, those in class sizes 31-30, 51-60, and over 60 had a greater chance of having this amount used to indicate knowledge.

Small class sizes of 21-40 tended to have guidance counselors involved in conferences for low grades as frequently as they had physical education teachers involved.

Question #8

Does the number of days a class is scheduled for physical education affect the grading procedure?

Each responding school was placed into one of the three following categories:

1. classes scheduled one to two days each week,
2. classes scheduled three days each week,
3. classes scheduled four to five days each week.

There were seven responding schools who did not fall into a regular pattern of scheduling. These schools were not used in this comparison as the irregularities were not constant.

The following factors seemed to affect grading procedures when compared with the number of days a class is scheduled each week:

1. the opportunity for a student to state the grade she thinks she deserves,
2. the number of written tests given throughout the year,

3. the method of evaluating skill in individual sports,
4. the percentage of grade allocated to reflect skill, knowledge, and behavior,
5. who holds conferences for low grades. (See Table IX in Appendix.)

When comparing the number of days a class is scheduled with the opportunity for a student to state the grade she thinks she deserves, it was found that all groups did not provide such an opportunity very often. However, when the class met only one or two days each week, the opportunity was provided most often.

The greater the number of days scheduled the more often written tests were given. It would appear that those classes meeting four to five days gave more written tests than classes scheduled less frequently.

The less often a class is scheduled for physical education the more often a subjective method of evaluating individual (dual) sports was used. Those classes that met three or four to five days each week tended to use the self-devised skill tests frequently, whereas those clases meeting only one or two days favored the subjective method over the self-devised method. In team sports, classes, no matter their schedule, frequently favored the self-devised method of evaluating skill.

The more frequently a class is scheduled, the greater the chances that the student will have no more than 25 per cent of the grade allocated towards skill. Those classes that met only one to two days tended to allocate 26-50 per cent of the grade towards skill.

The less frequently a class is scheduled, the greater the chances that you will have no more than 25 per cent of the grade allocated towards knowledge. Those classes scheduled one or two per week used 1-25 per cent of the grade to reflect knowledge 83 per cent of the time.

In comparing the percentage of the grade allocated to reflect behavior, it was discovered that classes meeting one to two days placed a higher percentage of the grade on behavior than did those classes which met three or four to five days per week.

In classes meeting one to two days each week, the guidance counselor was involved in conferences for low grades as frequently as the physical education teacher was involved.

Question #9

Does the actual class time affect the grading procedure?

Before classifying each school into a class time grouping, the actual teaching time for each responding school was determined by subtracting the total time allowed for dressing from the length of the physical education class. The responding schools were then classified into three class time groupings of 25-30 minutes, 35 minutes, and 40-45 minutes.

The following factors appear to affect the grading procedures when compared against actual teaching time provided by the responding schools:

1. the number of written tests given in physical education throughout the year,

2. the percentage of the total grade allocated towards skill, knowledge, and behavior. (See Table X in Appendix.)

It appeared that regardless of class time, all teachers tended to make use of the written test. However, classes meeting 35 minutes made the most use of the written test.

The percentage of the total grade allocated to reflect skill seemed to be affected by class time. Classes meeting 25-30 minutes and 40-45 minutes placed 26-50 per cent of the grade on skill while groups meeting for 35 minutes tended to allocate 1-25 per cent of the grade for skill. It would appear that the longer a class meets, the greater the chance of having more weight placed on knowledge. The percentage of the grade allocated for behavior is influenced by the class time. The classes of longer length never placed more than 26-50 per cent on behavior whereas the shorter classes occasionally placed as much as 50-100 per cent on behavior.

Question #10

What is the effect of co-education activities on grading procedures?

In order to test the effect that co-educational activities might have on grading procedures, the responding schools were divided into two groups: those offering co-educational activities and those not offering co-educational activities. It must first be pointed out, however, that those schools having co-educational

activities did not have a total co-educational program and that the number of co-educational activities provided ranged in number from one to five.

After comparison, it was ascertained that the following factors are affected by the presentation or non-presentation of co-educational activities:

1. the involvement of the physical education teacher in holding conferences for low grades,
2. the number of written physical education tests given throughout the year,
3. the percentage of the total grade allocated to reflect skill. (See Table XI in Appendix.)

When co-educational activities were part of the program, there was greater involvement by the physical education teacher rather than the guidance personnel in handling conferences regarding low grades. There was greater involvement by the guidance personnel when co-educational activities were absent from the program.

After dividing the number of written physical education tests administered throughout the school year into three main groups, comparisons were made regarding co-education or its absence. It was noted that a larger range or 7-15 written tests were given when co-education was part of the program. A smaller range or 1-6 written tests were given when co-educational activities were absent from the program.

In co-educational programs, there was a tendency to place a higher percentage or 26-50 per cent of the grade on skill than in the non-co-educational programs.

Question #11

Does the length of the marking period affect the grading procedures?

In order to compare the length of the marking period against various grading procedures, the responding schools were divided into two main groups. The first group was comprised of those schools having either a six or eight week marking period. The second group consisted of those schools with either a nine or ten week marking period.

It appeared that the length of the marking period had no effect on the grading procedures compared. (See Table XII in Appendix.) All schools tended to follow the same pattern in all comparisons made. However, in referring to Question #1, it was found that the length of the marking period affected the grade in determining the use of the physical education grade in computing a student's honor roll status and overall grade point average. Consequently, it might be noted that the length of the marking period does not affect the grade but it does affect the use of the grade.

Question #12

Does the use of a space on the report card for rating attitude affect grading procedures?

In order to compare the effect an attitude rating scale on the report card might have on the grading procedure, the responding schools were divided into two groups. One group had some form of an attitude scale and the other group provided no such scale.

The only item that was affected by the use or non-use of an attitude scale was found in the number of written tests given in physical education throughout the year. (See Table XIII in Appendix.) Those that used an attitude scale made use of a smaller range or 1-6 written tests while those that did not provide an attitude scale leaned more heavily on written tests by providing the students with a larger range or 7-15 written tests throughout the year.

Question #13

Does who determine the method of recording grades influence the evaluation process?

In order to see if the evaluation process could be affected by who is involved in determining the method of recording grades on the report card, the responding schools were placed into two groups. One group consisted of all schools who had physical education personnel involved in this decision. The other group was comprised of those schools which utilized an administrative decision.

The following two items seemed to be affected by the group making the decision as to the method of recording grades:

1. an attitude rating scale present on the report card,
2. the percentage of the total grade allocated to reflect skill. (See Table XIV in Appendix.)

There was a notable difference as to whether a space for evaluating attitude should be placed on the report card. The administrative personnel definitely provided this space whereas the physical education group appeared to take the reverse stand.

When comparing the percentage of the total grade used to reflect skill, it appeared that when the physical education teacher was involved in the decision as to how to record grades, she tended to place more weight on skill than she did when the administration made the decision.

Question #14

What are some factors that might affect the additional use of student evaluation?

The additional purposes of student evaluation used by the responding schools were categorized into four groups:

1. no additional use as the evaluation was used solely for grading purposes,
2. used for admittance into school clubs or for school honors,
3. used by the guidance department particularly for college purposes,
4. used within the physical education program for placement of a student according to ability either within an

individual class in respect to class competition or for a specialized class. (See Table XV in Appendix.)

The grade level of the school appeared to have some effect on how a student's grade is used outside of reporting progress. A teacher within a school with a structural grade level of ten through twelfth grade will probably make additional use of the grade for school clubs or honors much more frequently than it will for any other purpose.

When attempting to compare what method of evaluation was used for team sports with the additional use of a student's grade, it appeared that when the additional use of evaluation is for school clubs and honors, the standardized test is used much more frequently than the self-devised skill test which was used more frequently by the other groups.

It is interesting to note that 60 per cent of the sample indicated that the sole purpose of student evaluation was to provide the student with a grade, thus indicating a rather narrow concept of the purposes of evaluation.

Question #15

What are the predominate factors used in the evaluation of skill, knowledge, and behavior?

It was decided that any factor that was used by 70 per cent of the responding schools would be considered a predominate factor in the evaluation of a student's progress in the areas of skill, knowledge, and behavior. Once the predominate factors had been

determined for the total sample, the predominate factors for three grade level classifications, 7-12, 9-12, and 10-12, were then calculated.

The skill area of evaluation had been divided into two parts on the questionnaire. These two sub-divisions consisted of techniques used to evaluate motor and physical fitness skills. The three most predominate methods used by the total sample in evaluating the motor skills were:

1. self-devised skill tests, which were used by 91 per cent of the sample,
2. a subjective rating of daily skill performance which was used by 85 per cent of the sample,
3. a subjective rating of skill in a game situation which was used by 83 per cent of the group.

The physical fitness skills of a student were not used in evaluation by more than 43 per cent of the total sample and, therefore, could not be considered a predominate factor in the evaluation of a student's skill ability.

The area of knowledge had been divided into two main sections of skill knowledge and general knowledge on the questionnaire. In the evaluation of skill knowledge, both knowledge of rules and knowledge of techniques were considered predominate factors. In the testing of general knowledge, 72 per cent of the schools considered safety factors. It appeared that the written testing regarding knowledge relative to history, posted materials, and physical education objectives was used by less than 40 per cent of the total sample.

The questionnaire had categorized the behavior-attitude area into the two parts of rules-regulations and participation. The predominate factors used in the rules-regulations area were:

1. clean uniform used by 89 per cent of the sample,
2. lateness to class used by 89 per cent,
3. gum chewing used by 87 per cent,
4. wearing of jewelry used by 76 per cent,
5. dressed in uniform for class which was used by 70 per cent of the responding schools.

Although the taking of showers was used only by 57 per cent of the sample and could not be considered a predominate factor, it might be considered such if related to the availability of showers in the responding schools.

The predominate factors used in the participation area were:

1. cooperation - 85 per cent,
2. sportsmanship - 83 per cent,
3. respect for the teacher - 80 per cent,
4. respect for peers - 80 per cent,
5. initiative - 78 per cent,
6. leadership - 74 per cent,
7. responsibility - 70 per cent

A breakdown of each area can be found in Table XVI in the Appendix.

Question #16

A. What is the most predominate method of recording grades?

B. What percentage of schools have changed their marking

system within the past ten year?

C. Which method of recording grades best evaluates a student's work in physical education.

A. Before determining the most predominant method of recording grades used by the total sample and used by each grade classification, responding schools were classified into one of the following four categories:

1. a 10 point or percentage system,
2. a 5 point or A-F, A-E system,
3. a 3 point or H-N-U, or O-P-F (outstanding, average or unsatisfactory) system,
4. a 2 point or P-F, or S-U (satisfactory/pass or unsatisfactory/fail) system.

The most predominant method of recording grades used by both the total sample and also by each grade level classification was the 5 point or A-F, A-E system. Eighty-five per cent of the total sample used this method. (See Table XVII in Appendix.)

B. Fifteen responding schools or 25 per cent of the total sample had changed their method of recording grades during the past ten years. Of the schools that had changed, eleven were now using the 5 point method of recording grades. Of these eleven, two had previously been using the same method but had added a checklist for broader scope in their evaluation; five had previously used the 2 point or P-F/S-U method; one had changed from reporting the grade every other marking period to every marking period;

one had previously given no grades; one had previously used a checklist; and one did not list what they had previously used.

Two of the schools that had changed systems for recording grades were now using the 3 point or O-P-F/H-N-U system. One of these schools had previously used the broader numerical system and the respondent stated that although she agreed with the change, she would prefer a 5 point system. The other school now using the O-P-F method had previously used the 2 point method and viewed the change favorable because it gave an opportunity for the teacher to give recognition to the better students.

Of the two remaining schools that had made changes in their methods of recording student progress, one school had changed from the 5 point system to a 10 point method when the entire school changed its method of reporting grades. The one remaining school had changed from the A-F system to the 2 point or P-F system when all minor subjects in the school, such as music, art, and physical education, were required to report student progress in the P-F form.

The following are a list of reasons given by the schools as to why changes had been made in the method of reporting a student's grade:

1. to widen the scope of reporting student progress,
2. to be on the same level with the rest of the school,
3. to elevate physical education in the eyes of the other teachers and students,
4. to offer incentive to the students,

5. to provide the honor society with a clearer definition of student progress,
6. to follow a change in the entire school's policy,
7. to allow for distinction between an A and a D student,
8. to pacify guidance counselors who were concerned that the physical education grade kept students off the honor roll.

C. It would appear that most schools in the sample were satisfied with their present method of reporting student progress. Of the five schools using the 10 point method, four thought that it was the best method. Of the fifty schools that were using the 5 point or A-F system, forty-six felt that their present system of recording grades was the best way to evaluate a student's work in physical education. Of the two schools which used a 3 point system, one felt that this was the best method of reporting progress whereas the other would preferred to have used a 5 point scale or A-F. (See Table XVIII in Appendix.)

Question #17

Are there any factors making it impossible to achieve objectives?

In determining if there were any factors making it impossible to achieve objectives, the responding schools were divided into two groups. One group was comprised of those schools answering in the affirmative to the question, and the second group was comprised of those schools answering in the negative.

It was found that 65 per cent of the total sample did feel that there were one or more factors hindering the achievement of objectives. The most predominate factor appeared to be that of class size. Other factors involved were: facilities and equipment, gym space, field space, time scheduling, and attitude of the school. (See Table XIX in Appendix.)

Question #18

What are the major objectives sought? What are the reflected primary objectives. What happens when these objectives are compared?

Originally, it was intended that each responding school would be classified according to their sought, or stated objectives; however, inasmuch as most respondents did not indicate which objectives were primary and which were secondary, it was necessary to determine the objectives most sought by the total sample rather than by each individual respondent.

Before determining the major objectives sought by the total sample, a list of 205 objectives was given to five physical education instructors, each of whom had five or more years teaching experience. They were asked to rate each objective according to the area into which the objective might fall when determining a student's grade. (See Appendix for rating instructions.) Their classifications plus that of the writer's were then tallied. In reviewing the ratings given by each of the rating teachers, it appeared that little agreement was reached as to which of the four

categories the objectives would fall when determining the grade. Only 22 per cent of the objectives received identical ratings by all six raters, and almost all of these objectives dealt with skill or physical fitness. Identical ratings were given to 33 per cent of the objectives by three teachers; identical ratings were given to 22 per cent by four teachers; identical ratings were given to 14 per cent by two teachers; and five teachers gave identical ratings to 8 per cent of the objectives. The teachers involved in each of the above groups were not always identical and varied from objective to objective.

In order to determine the major objectives of the total sample, the most frequent classification was given to each objective. In order not to eliminate any of the stated or sought objectives, it was decided that each objective would be finally classified into the corresponding areas of skill, knowledge, behavior, or non-gradeable aims if they had identical ratings by at least two raters. Due to the fact that some objectives fell into more than one classification, there was a total of 246 objectives represented.

It would appear that the objectives indicating skill, behavior, and non-gradeable aims received equal emphasis by the total sample. It is necessary to point out that the method used for classification of major objectives sought by the total sample was affected by the number of objectives listed by each respondent and also by the frequency requirement by which they were classified into a specific area. The very fact that the raters could not

agree on many of the objectives and their relationships to grading clearly indicates why confusion exists in physical education grading practices.

The reflected primary objectives of the total sample were determined by first grouping the schools according to where they placed the highest percentage of the grade in the areas of skill, knowledge, and behavior as indicated on the questionnaire. It was then assumed that where the greatest weight was placed by a school was an indirect determination of its desired or primary objectives. Due to the fact that some of the schools placed an equal amount of weight on two or more areas, the number of responses for each area was computed. It is for this reason that the percentage presented total more than 100 per cent.

It appeared that behavior, as indicated by 73 per cent, was the primary objective of most of the total sample. Skill was shown to be the second most important objective and knowledge third. It was interesting to note that only two respondents or 3 per cent of the sample stated that the weight placed on each area would vary from activity to activity.

In attempting to compare sought objectives with objectives reflected through grading techniques, it appeared that although behavior objectives made up 29 per cent of the objectives sought, 73 per cent reflected behavior as a primary objective when grading. While 28 per cent of the sought objectives indicated skill, 41 per cent reflected skill when grading. Knowledge objectives

made up 21 per cent of the objectives sought while only 12 per cent reflected this in their grading procedure.

Although there appear to be large discrepancies between objectives sought and objectives reflected through grading, it must be remembered that the method used to determine the major sought objectives did not allow for an overlapping of objectives by the sample and that these objectives were also affected by the number of objectives listed by each school. It should also be noted that it was assumed that all stated objectives were consistent for each marking period. This may or may not be the case. (See Table XX in Appendix.)

Due to the failure of teachers to indicate which were the primary and secondary objectives sought in their physical education programs and due to the method used to classify the sought objectives, conclusions drawn from the data obtained concerning relationships between sought objectives and objectives reflected through grading procedures would be based only on pure speculation.

The only possible view of objectives would then have to be taken from the reflected objectives as indicated by the weight placed on each area when computing a student's grade for the marking period. In this case, it was found that the area concerned with behavior-attitude, or theoretically personality growth, was the main objective of a large portion of the selected sample.

Question #19

Does the emphasis of certain stated objectives affect the evaluation process?

The major objectives sought by the total sample were determined by the frequency with which they were stated by the total sample. All objectives were classified into one of the following categories: skill, knowledge, behavior, or non-gradeable objectives. These categories were chosen for classifying as they represented the three areas used in grading on the questionnaire. It must be realized, however, that the classification was affected by the method used for classification, the number of objectives listed for each school, and by the limited amount of agreement among teachers who rated the objectives as indicated in Question #18.

The only factors that appeared to be affected by the stated or sought objectives were the method of evaluating skill in individual (dual) sports and the discussion of objectives. It was ascertained that when standardized tests were used to evaluate skill in individual sports, the objectives reflecting skill were used more frequently than were knowledge or behavior objectives. It was also discovered that when objectives are not discussed for each activity or are discussed only occasionally, non-gradeable objectives were stated more frequently. (See Table XXI in Appendix.)

It was interesting to note that the group giving no written tests throughout the year also did not mention any objectives indicating knowledge.

Question #20

Does the emphasis of certain reflected primary objectives affect the evaluation process?

The reflected primary objective was organized by grouping the responding schools according to where they placed the highest percentage of the grade. The three areas as noted on the questionnaire were skill, knowledge, and behavior. It was assumed that wherever the greatest grading weight was placed by a school was an indirect determination of its desired or primary objective. Due to the fact that some schools placed an equal amount of weight on two or more of the areas, the number of responses for each area was computed.

The only factor that seemed to be affected by the reflected objectives was the number of written tests. When knowledge was the primary reflected objective, a slightly smaller range (1-6) of written tests was administered more frequently than when skill and behavior were the primary objectives.

It was interesting to note that no matter which area was emphasized that achievement, effort and improvement were evaluated in determining the student's grade. Many schools tend to use effort, achievement, and improvement in their analysis of a student's progress, thus indicating an interest in the process of learning as well as the content. (See Table XXII in Appendix.)

Question #21

What is the mean percentage placed on skill, knowledge, and behavior in determining a student's grade by the total sample and by each grade level classification?

When determining a student's grade for the marking period, the mean percentage allocated by the total sample to skill was 32 per cent; to knowledge, 27 per cent; and to behavior, 46 per cent.

It would appear that the most percentage is placed on behavior by the total sample and also by the grade level classifications of 9-12, 10-12, and the group classified as other. The 7-12 grade classification tended to place more emphasis on skill than it did on behavior.

The differences in percentages with the subdivisions of skill and knowledge were great and slight within the subdivisions of behavior. The subdivisions of all three areas of skill, knowledge, and behavior appeared to place the most emphasis on motor skill, skill knowledge, and participation, respectively. This held true for the total sample as well as for each grade level classification. (See Table XXIII in Appendix.)

Question #22

Are there any rules or regulations affecting a marking period grade?

The following open-end question was used on the questionnaire in order to determine if there were any extraneous factors affecting the marking period grade regardless of the student's ability: "Is there any rule or regulation in physical education that could cause a student to fail for the marking period regardless of skill level and knowledge (e.g. being late too often, not taking showers, etc.)?"

Many of the factors that seemed to affect a student's grade were items that are listed under the Behavior-Attitude section of the questionnaire (Grading Factors). The factors suggested were divided into the following categories:

1. Rules and Regulations, including such items as clean uniform, lateness, gum chewing, showers, jewelry, or behavior rules and regulations.
2. Set number of "unpreparedS" which ranged in number from 2-6.
3. Attitude, which included general behavior, effort, and cooperation.
4. Discipline, which also included intentional missing of classes.
5. Non-participation which included such phrases as unprepared, absences, and non-participation.
6. No extraneous factors affect the marking period grade.

Some schools fell into more than one category.

It would appear that almost half of the responding schools considered non-participation as an important factor in determining whether a student could fail regardless of skill and knowledge level. It must be remembered, however, that this category of non-participation included such general statements as unprepared and absences.

Twenty-six per cent stated that Behavior Rules-Regulations and a set number of "unpreparedS" could fail a student for the marking period. Thirteen per cent stated attitude was a

determining factor and 9 per cent noted discipline. (See Table XXIV in Appendix.)

Inasmuch as only four schools or 7 per cent of the sample stated that there were no factors that could cause a student to fail for the marking period regardless of skill and knowledge ability, it would appear that the Behavior-Attitude area of evaluation plays a major role in a student's evaluation in relation to grading for most of the responding schools. Inasmuch as approximately 93 per cent of the sample falls into this category, it is interesting to note that when reflected primary objectives were determined, 73 per cent of the total sample appeared to reflect behavior as a major objective, 41 per cent reflected skill, and 20 per cent reflected knowledge and 3 per cent indicated that the objectives varied with the activity.

CHAPTER VII

SUMMARY AND CONCLUSIONS

The three-fold purpose of this study was:

1. to survey the existing physical education evaluation practices as they relate to grading in a selected sample of New Jersey high schools,
2. to ascertain whether the evaluation practices were influenced by identifiable factors,
3. to ascertain possible relationships among teacher objectives and grading procedures.

SUMMARY

The data used for this study were based on a 45 per cent return of questionnaires mailed to 135 girls physical education departments belonging to the New Jersey Athletic Association for Girls. The analysis of the data received was based upon a series of twenty-two conceptual questions which enabled comparisons to be made between various grading practices and the extrinsic and intrinsic factors thought to have an effect on the grading practices used.

An evaluation profile was developed from the information found in the Analysis and Presentation of Data in order to achieve the first two purposes of this study. The intent of this profile was to indicate not only those factors affecting each area of

evaluation involved in the questionnaire but also to point out the similarities that existed within the selected sample. These similarities were ascertained by checking the non-affecting factors in the comparisons made in order to determine the general pattern of evaluation in that area. This information was then compared against available information in the Presentation of Data. The reliability of the similarities was checked in this fashion.

In reading the profile, it must be noted that although some influencing factors did not appear to deviate from the similarities, the factorial differences were ascertained by the degree of frequency with which these similarities were used.

EVALUATION PROFILE

Evaluation Factors	Influencing Factors	How
Failure/Non-failure	class size	in classes under 60 students, the more often non-failure occurred as the classes became larger
Total sample had more schools who failed students than it did schools who did not fail students	discussion of grade discrepancies	a higher incidence of failure as opposed to non-failure when discrepancies were not discussed
	scheduled conferences for low grades	a higher incidence of failure as opposed to non-failure when conferences were not scheduled
	number of written physical education tests administered	the greater the number of written tests, the greater the number of non-failure occurrences; and inversely, the smaller the number, the greater the occurrence of failure

Evaluation Factors	Influencing Factors	How
	per cent allocated to reflect skill	from 1-50 per cent, the greater the weight, the greater the incidence of failure
Discussion of Grade Discrepancies A majority of sample provided this opportunity and 13 per cent never allowed such discussions	structural grade level of school	7-12 grade level schools allowed this discussion much more frequently
Discussion of Objectives A majority of sample discussed objectives for each activity; only 3 per cent never discussed objectives	class size	the smaller the class size, the greater the chance that objectives were discussed
Opportunity to State Grade Prior to Receiving Teacher's Grade Only 7 per cent of total sample provided this opportunity	number of days classes are scheduled for physical education	the less often a class meets, the greater the chance that this opportunity was provided
Conferences for Low Grades Over half of sample scheduled conferences and only 18 per cent never scheduled these conferences. The physical education	structural grade level of school co-educational activities	7-12 grade level will schedule conferences much more frequently greater involvement of physical education teacher in conferences when co-education is part of program; greater

Evaluation Factors	Influencing Factors	How
teacher was involved more frequently than guidance personnel		involvement of guidance counselor when not part of program
	class size	class size of 21-40 involved guidance counselors as frequently as physical education teachers
	number of days scheduled for physical education	classes meeting one-two days involved guidance counselors as frequently as they did the physical education teacher
	number of girls enrolled in the school	schools with a girl enrollment of 800-1000 always scheduled conferences for low grades
Use of Physical Education Grade in Determining Honor Roll Status	structural grade level	7-12 grade level schools used grade in this capacity 100 per cent of the time
Approximately two-thirds of sample used the grade in this capacity.	length of marking period	the shorter marking period of six-seven weeks used the grade in this capacity much more frequently
	number of written tests administered	those giving zero and 7-15 tests used the grade in this capacity much more frequently
Use of Physical Education Grade in Determining Overall Grade Point Average	structural grade level	7-12 grade level schools used grade in this capacity 100 per cent of the time
Approximately two-thirds of sample used the grade in this capacity.	length of marking period	the longer marking period made use of the grade in this capacity more frequently

Evaluation Factors	Influencing Factors	How
	number of written tests administered	those giving zero tests used the grade in this capacity much more frequently
	actual teaching time	the shorter the class time, the greater the use of the grade in this capacity
Evaluation of Skill in Individual Sports Self-devised skill tests favored more frequently by sample.	number of girls enrolled in the school	schools with girl enrollments of 400-600 tended to use the subjective rating slightly more often
	number of days classes are scheduled for physical education	the less often a class is scheduled, the more often the subjective rating was used
Evaluation of Skill in Team Sports Self-devised skill tests favored more frequently than any other method.	NONE	
Number of Written Physical Education Tests Administered One-fifth of sample never administered tests; two-fifths gave 1-6 tests; two-fifths gave 7-15 tests throughout the year	terminal degree of teacher	master degree teachers gave more tests throughout the year
	number of girls enrolled in the school	up to 800 students, the more girls enrolled, the greater the range of tests
	physical education teaching experience	those teaching for more than fifteen years gave more tests
	class size	classes under 60 students administered a greater range of tests

Evaluation Factors	Influencing Factors	How
	number of days a class is scheduled for physical education	the greater the number of days scheduled, the more often written tests were given; those that met four to five days gave a larger range of tests
	actual teaching time	those teaching for 35 minutes made the most use of written tests
	co-educational activities	a greater range of written tests when co-education is part of program
	structural grade level	7-12 and 9-12 grade level schools tended to give a greater range of written tests
Percentage of Grade Allocated to Reflect Skill The percentage given by the sample varied from 1-50 per cent; the mean percentage weight was 32 per cent.	number of girls enrolled in the school	the smaller the enrollment, the greater the chance of having 26-50 per cent allocated; the larger enrollments of 800-1000 allocated 1-25 per cent.
	physical education teaching experience	those teaching 1-5 years, 16-20, and 21-30 placed 26-50 per cent on skill; 6-10 years, 11-15, and 16-20 placed only 1-25 per cent on skill
	class size	the smaller the class size, the more often 26-50 per cent of the grade was used to reflect skill except for those in class sizes of 31-40 who used 1-25 per cent

Evaluation Factors	Influencing Factors	How
	number of days classes are scheduled for physical education	the more often classes met, the greater the chance that no more than 25 per cent was allocated to reflect skill
	actual teaching time	teachers teaching for 25-30 minutes and 40-45 minutes placed more emphasis on skill than did those meeting for 35 minutes
	co-educational activities	there was a tendency to place a greater emphasis on skill in schools with co-educational programs
	who determines the method of recording grades	a greater emphasis on skill when physical education teachers were involved in the decision
	structural grade level	7-12 grade level schools placed more emphasis on skill
Percentage of Grade Allocated to Reflect Knowledge	number of girls enrolled in the school	the larger the enrollment, the greater the chance of placing a higher percentage on knowledge
The percentage allocated by sample ranged from 1-25 per cent most frequently; the mean percentage weight was slightly higher at 27 per cent.	class size	there was a greater chance of having 1-25 per cent on knowledge in class sizes of 21-30, 51-60, and over 60 students
	number of days classes are scheduled for physical education	classes meeting one-two days placed 1-25 per cent on knowledge much more frequently than did other class sizes

Evaluation Factors	Influencing Factors	How
	actual teaching time	the longer a class meets each period, the greater the chance that more weight was placed on knowledge (26-50 per cent)
	structural grade level	10-12 grade level schools tended to place a higher percentage on knowledge
Percentage of Grade Allocated to Reflect Behavior	number of days a class is scheduled for physical education	those meeting one-two days per week placed a much higher percentage (51-75 per cent) on behavior 100 per cent of the time
The percentage allocated by the sample ranged from 26-50 per cent most frequently; the mean percentage weight was 46 per cent.	actual teaching time	teachers teaching for 40-45 minutes never placed more than 26-50 per cent on behavior; those that met for a shorter time occasionally placed 51-100 per cent on behavior
	structural grade level	occasionally schools with grade levels 9-12 placed as much as 51-100 per cent on behavior
Reflected Objectives	physical education teaching experience	those teaching 1-5 and 16-20 years placed as much emphasis on skill as they did behavior
Behavior was reflected as the primary objective most often by the sample.	structural grade level	7-12 grade level schools reflected skill more frequently than behavior
	number of written tests	when there was a smaller range of written tests (1-6), knowledge was the primary objective

Evaluation Factors	Influencing Factors	How
The Use of Achievement, Effort and Improvement in Determining the Grade	physical education teaching experience	those teaching from 1-15 years placed a slightly higher emphasis on effort, while those teaching 16-30 years, emphasized effort and achievement equally
Slightly over half of sample used all three areas in this capacity. In comparisons made, there is more frequent use of effort with achievement than there is use of improvement.		
The Presence of a Space to Rate Attitude, Behavior, Personality Development and Work Habits	who determines the method of recording grades	when physical education teachers are involved in this decision, the space is usually not provided; however, it was frequently provided when it was an administrative decision
Slightly over half the sample had such a space on their report cards.	number of written tests given	the greater the range of written tests, the more often this space was not provided
Additional Use of the Evaluation Results	structural grade level	10-12 grade level schools used the results for school clubs and honors as often as it used it for grading
Three-fifths of the sample used evaluation results only for grading.	evaluation of team sports	when self-devised skill tests were used to evaluate skill in team sports, the results were used for grading and guidance purposes; when standardized tests were used, the results were used for grading and school clubs and honors

Additional similarities in the evaluation process that do not appear in the Evaluation Profile are:

1. The A-F system of recording grades was the most commonly used method.
2. Most schools had been using the same method of recording grades in physical education for more than ten years. Only 25 per cent of the sample had made a change in methods during the last decade.
3. The same method of recording grades was used for both boys and girls.
4. The method used to record physical education grades was identical to the method used in all other school subjects.
5. The method used to record physical education grades was usually based on an administrative decision.
6. A majority of respondents indicated that the method they were now using to record grades in physical education was the best evaluation of a student's work.
7. Most schools required a passing grade every year in physical education for graduation. Although New Jersey's state law requires all students to participate in physical education every year that the student is in school, it does not indicate pass/fail requirements. This is left up to the discretion of the individual school.
8. Almost all schools scheduled students in physical education according to grade level rather than skill.

9. The most predominate factor used in evaluating skill in both team and individual (dual) sports was the self-devised skill test.
10. The most predominate factor used in the evaluation of knowledge gained by the student was the written knowledge test concerned mainly with the knowledge of rules.
11. The most predominate factors used in the evaluation of behavior-attitude were clean uniform, lateness to class, and gum chewing.
12. The behavior-attitude category received the highest mean percentage weight in determining a student's grade.
13. A majority of the sample indicated that there were factors hindering the achievement of objectives. The factor mentioned most frequently was that of class size.
14. A majority, or 93 per cent of the sample indicated that there were factors that could cause a student to fail for the marking period regardless of skill or knowledge. All factors listed were items pertaining to the behavior-attitude section of the questionnaire. Non-participation, including absences and unpreparedes were list most frequently.

The third purpose of this study was to ascertain possible relationships among teacher objectives and grading procedures. The data obtained from the questionnaire was not inclusive enough to elicit enough information in order to draw any valid conclusions concerning the relationship between the objectives

teachers stated they were attempting to achieve and the objectives reflected through their grading procedures.

It was, therefore, assumed that the objectives reflected by the teacher's grading procedures as indicated in this study by the weight placed on the areas of skill, knowledge, or behavior-attitude were the true primary objectives of the responding teacher. All conclusions made in relation to objectives were in reference to these reflected primary objectives and not to the objectives stated by the respondents.

CONCLUSIONS

The above information resulted in the following conclusions:

1. The general evaluation procedure as it relates to grading was affected by identifiable factors.
2. All evaluation areas represented in this study were affected by identifiable factors to some degree except for the area concerned with the evaluation of skill in team sports. How much of an effect these identifiable factors had on the total evaluation process varied from factor to factor.
3. The extrinsic identifiable factors affecting evaluation procedures were:
    a. the structural grade level of the school
    b. the number of days classes are scheduled for physical education
    c. the size of the class

d. the actual time spent teaching each class

e. the number of girls enrolled in the school

f. the physical education teaching experience of the teacher

g. the length of the marking period

h. the person determining the method used for recording grades

i. the terminal degree of the teacher.

4. The intrinsic identifiable factors affecting evaluation procedures were:

a. the discussion of grade discrepancies

b. the scheduling of conferences for low grades

c. the number of written physical education tests administered throughout the year

d. the percentage of the grade used to reflect skill.

5. The physical education teachers were concerned with the total objectives of education as they included behavior-attitude development as well as skill and knowledge achievement in their grading and measurement procedures.

6. The most important objective as indicated by the grading procedures was that of behavior-attitude development. This reflected philosophy concerning objectives did not equate with the philosophy found in the literature. Most physical educators in the field felt that skill achievement should be the most important objective in that this is the area in which educators spend the most time and energy.

7. It appeared that because behavior-attitude objectives were reflected as the most important area of development, the resulting grade issued by a majority of the teachers was based on the subjective opinion of the teacher more often than on objective measurement.
8. Although very little knowledge testing was done concerning objectives of physical education, the respondents seemed to be concerned with objectives in that a majority of them discussed objectives with the students for each activity.
9. There are factors affecting the achievement of objectives.
10. The importance of objectives and any valid principle regarding grading practices and their relationship to objectives was completely negated by most of the respondents. There was definite indication by 93 per cent of the sample that there existed certain rules or regulations that could cause a student to automatically fail for the marking period regardless of skill or knowledge ability.
11. There appeared to be an inconsistency in the teacher's philosophy and their actual grading practices in that although non-participation was a major rule for automatic failure for the marking period, the number of excuses from physical education by the student and attendance of the student was not a predominate factor

used in the evaluation of behavior-attitude development when determining a student's grade for the marking period.

12. There appeared to be an interest in the process of learning as well as content in that many teachers employed a combination of achievement, effort, and improvement in determining a student's grade. The methods used to determine improvement and effort were not indicated.
13. External factors affecting the educational status of physical education was not a deterrent for a majority of the sample. They used the same methods of recording grades as did other academic subjects and they issued this grade every marking period. Most of the respondents made use of the grade in determining honor roll status, overall grade point average, and a graduation requirement.
14. There was no potential difference in the educational significance of all physical education activities, as a majority weighted the areas of skill, knowledge, and behavior in relatively the same manner for all activities. Although this may seem inconsistent with the philosophy of some physical educators in the field, it did show a close relationship to the major objective of behavior-attitude development as reflected through their grading procedure.
15. It would appear that the grade given at the end of the marking period has become the end objective of evaluation

for the teacher. Most respondents appeared to have a rather narrow concept of the total function of evaluation in that 60 per cent made no further use of evaluation results other than for grading. Only three teachers made use of the results within the physical education class or program. This viewpoint of evaluation is a possible reason why the grade, the symbol, rather than the achievement made, has also become the end objective for the student.

16. There was some concern regarding existing grading practices. In signing the questionnaire, 73 per cent of the respondents indicated that they wished to receive information regarding the outcome of this study.

RECOMMENDATIONS FOR FURTHER STUDY

Further studies could include the following areas of investigation:

1. This study could involve more schools and could include procedures used in boys programs as well as girls.
2. The reason for the limited use of standardized skill tests in measurement needs to be determined.
3. The area of stated objectives as related to the mark in physical education needs in-depth consideration.
4. The student's interpretation of the grade in physical education needs investigation in order to determine if this interpretation relates to objectives of the teacher and of the profession.

5. A comparison of various evaluation procedures needs to be made between physical education programs using the A-F system of marking and programs using the pass/fail system in order to determine if there are any significant differences.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS

1. American Association for Health, Physical Education and Recreation. Developing Democratic Human Relations Through Health Education, Physical Education and Recreation. First yearbook. Washington, D. C.: American Association for Health, Physical Education and Recreation, 1951. 562 pp.

2. Barrow, Harold M., and Rosemary McGee. A Practical Approach to Measurements in Physical Education. Philadelphia: Lea and Febiger, 1964. 560 pp.

3. Bovard, John F., and Fredrick W. Cozens. Test and Measurements in Physical Education. Third edition. Philadelphia: W. B. Saunders Company, 1949, 410 pp.

4. California State Department of Education Bulletin. Evaluating Student Progress. Sacramento: California State Department of Education, April, 1962, XXI, No. 6. 184 pp.

5. Clarke, Harrison H. The Application of Measurement to Health and Physical Education. New York: Prentice-Hall, Inc., 1945. 415 pp.

6. Cowell, Charles, and Hilda Schwehn. Modern Principles and Methods in Secondary School Physical Education. Second edition. Boston: Allyn and Bacon, Inc., 1964. 418 pp.

7. Hughes, W. L., and Ester French. The Administration of Physical Education for Schools and Colleges. New York: A. S. Barnes and Company, 1954. 383 pp.

8. Kozman, Hilda, and Rosalind Cassidy, and Chester O. Jackson. Methods in Physical Education. Third edition. Philadelphia: W. B. Saunders Company, 1958. 549 pp.

9. Latchaw, Marjorie, and Camille Brown. The Evaluation Process in Health Education, Physical Education, and Recreation. Englewood-Cliffs, New Jersey: Prentice-Hall, Inc., 1962. 267 pp.

10. McCloy, Charles H. Test and Measurements in Health and Physical Education. New York: F. S. Crofts and Company, 1939. 392 pp.

11. Mathews, Donald K. Measurement in Physical Education. Philadelphia: W. B. Saunders Company, 1963. 388 pp.

12. Nunnally, J. C. Educational Measurement and Evaluation. New York: McGraw-Hill Book Company, 1964. 440 pp.

13. Remmers, H. H., N. L. Gage, and J. F. Rummel. A Practical Introduction to Measurement and Evaluation. New York Harper and Bros., 1960. 370 pp.

14. Sanborn, Alice M., and Betty G. Hartman. Issues in Physical Education. Philadelphia: Lea and Febiger, 1964. 256 pp.

15. Schwartz, Alfred, and Stuart Tiedman. Evaluating Student Progress in the Secondary School. New York: David McKay Company, Inc., 1957. 434 pp.

16. Smithells, Philip A., and Peter B. Cameron. Principles of Evaluation in Physical Education. New York: Harper and Bros., 1962. 478 pp.

17. Stanley, Julian C. Measurement in Today's Schools. Fourth edition. Englewood-Cliffs, New Jersey: Prentice-Hall, Inc., 1964. 395 pp.

18. Stroup, Francis. Measurement in Physical Education. New York: The Ronald Press Co., 1957. 192 pp.

19. Thorndike, Robert L., and Elizabeth Hagen. Measurement and Evaluation in Psychology and Education. Second edition. New York: John Wiley and Sons, Inc., 1961. 602 pp.

20. Voltmer, Edward F., and Arthur A. Esslinger. The Organization and Administration of Physical Education. New York: Appleton-Century Crofts, Inc., 1958. 558 pp.

21. Willgoose, Carl E. Evaluation in Health Education and Physical Education. New York: McGraw-Hill Book Company, Inc., 1961. 479 pp.

22. Williams, J. F. The Principles of Physical Education. Eighth edition. Philadelphia: W. B. Saunders Company, 1964. 524 pp.

23. _____ and Clifford Brownell, and E. L. Vernier. The Administration of Health Education and Physical Education. Fifth edition. Philadelphia: W. B. Saunders Company, 1958. 387 pp.

24. Wrinkle, W. L. Improving Marking and Reporting Practices. New York: Rinehart and Company, Inc., 1947. 120 pp.

B. PERIODICALS

25. Arwood, Frank. "The Use of Marks in Physical Education," The High School Journal, 36:214-218, April, 1953.

26. Bookwalter, Karl Weber. "Marking in Physical Education," Journal of Health and Physical Education, 7:16-19, 61-62, January, 1936.

27. Boyd, Clifford A. "A Philosophy for Assigning Grades in Physical Education Classes," The Physical Educator, 13-14:64-65, May, 1957.

28. Broer, Marion R. "Are Our Physical Education Grades Fair?", Journal of Health, Physical Education and Recreation, 30:27, 84, March, 1959.

29. Callon, Ruth. "Marks or Misjudgments," The Physical Educator, 12:125-126, December, 1955.

30. Grigson, Herbert W. "The Physical Education Report Card," The Physical Educator, 15-16:57-61, May, 1959.

31. Gustafson, William F. "A Look at Evaluative Criteria in Physical Education," The Physical Educator, 20:172-173, December, 1963.

32. Hadley, Trevor S. "A School Mark-Fact or Fancy?", Educational Administration and Supervision, 40:305-312, May, 1954.

33. Heffernan, Helen. "Evaluation-More Than Testing," National Education Association Journal, 47:227-229, April, 1958.

34. Hennis, Gail M. "Construction of Knowledge Tests in Selected Physical Education Activities for College Woman," Research Quarterly, 27:301-09, October, 1956.

35. Jensen, Clayne. "Improve Your Marking System in Physical Education," The Physical Educator, 18:97-98, October, 1962.

36. Libia, Maria, and John W. Loy. "Some Comments on Grading," The Physical Educator, 22:158-160, December, 1965.

37. McGraw, Lynn W. "Principles and Practices for Assigning Grades in Physical Education," Journal of Health, Physical Education, and Recreation, 35:24-25, February, 1964.

38. May, Robert B. "A Dean of Education Speaks," Journal of Health, Physical Education, and Recreation, 36:49, 62, September, 1965.

39. Price, Herbert C. "A New Kind of Report Card," Journal of Health, Physical Education, and Recreation, 32:18-19, 38, February, 1961.

40. Spindler, Evelyn. "Do You Grade or Guess?", Journal of Health and Physical Education, 2:26-28, 48-49, October, 1931.

41. Tyler, Ralph. "The Place of Evaluation in Modern Education," The Elementary School Journal, XLI:19-27, September, 1940.

42. Yauch, Wilbur A. "What Research Says About School Marks and Their Reporting," National Education Association Journal, 50:50, 58, May, 1961.

C. UNPUBLISHED MATERIALS

43. Adams, Miller Kempner. "Principles for Determining High School Grading Procedures in Physical Education for Boys." Unpublished Doctoral dissertation, New York University, New York City, New York, 1960, 304 pp. (Micro-card.)

44. Reid, Ruth. "Principles of Grading Physical Education as Applied to Women's Programs at The Secondary Level," Measurement and Evaluation section, Southern District Association of Health, Physical Education, and Recreation, Richmond, Virginia, February 26, 1967.

APPENDICES

APPENDIX A

Analysis of Data Tables

TABLE I

WHAT ARE THE IDENTIFIABLE FACTORS THAT AFFECT THE USE OF THE PHYSICAL EDUCATION GRADE IN DETERMINING A STUDENT'S HONOR ROLL STATUS?

Comparative Factors	Total N	Honor Roll Used N	Honor Roll Used %	Honor Roll Not Used N	Honor Roll Not Used %
Grade Level	57				
7-12		8	100 *	0	0
9-12		21	60	14	40
10-12		11	79	3	21
Education of Teacher	58				
bachelors		25	82	14	18
masters		15	88	4	12
Number of Years Teaching Physical Education	59				
1-5		14	70	6	30
6-10		11	65	6	35
11-15		6	60	4	40
16-20		5	83	1	17
21-30		3	75	1	25
over 30 years		1	50	1	50
Class Size	60				
21-40 students		18	81	8	18
41 and over		25	73	9	27
Number of Days Classes are Scheduled	49				
1-3 days		18	80	10	20
4-5 days		17	76	5	24
Actual Teaching Time	58				
25-35 minutes		26	74	13	26
40-50 minutes		13	81	6	19
Type of Grade Used	58				
5 point or A-F		37	75	15	25
Per cent		2	50	2	50
S-U/P-F		1	50	1	50
Length of Marking Period	57				
6-7 weeks		19	95 *	1	5
8 weeks		7	47	8	53
9-10 weeks		13	58	9	42

TABLE I (continued)

Comparative Factors	Total N	Honor Roll Used N	Honor Roll Used %		Honor Roll Not Used N	Honor Roll Not Used %
Space for an Attitude Rating	60					
yes		23	68		11	32
no		18	69		8	31
Are Objectives Discussed?	59					
yes		33	73		12	27
no		0	0		2	100
occasionally		7	58		5	42
Number of Written Tests Given	60					
no tests given		8	80	*	2	20
1-6 tests		14	53		12	47
7-15 tests		19	79	*	5	21
Method of Evaluating Skill in Team Sports	129					
standardized skill test		19	79		5	21
self-devised skill test		45	71		18	29
subjective rating		28	67		14	33
Method of Evaluating Skill in Individual Sports	128					
standardized skill test		21	72		8	28
self-devised skill test		43	63		25	37
subjective rating		40	68		19	32

* Influencing factor.

TABLE II

WHAT ARE THE IDENTIFIABLE FACTORS THAT AFFECT THE USE OF THE PHYSICAL EDUCATION GRADE IN DETERMINING A STUDENT'S OVERALL GRADE POINT AVERAGE?

Comparative Factors	Total N	Honor Roll Used N	Honor Roll Used %	Honor Roll Not Used N	Honor Roll Not Used %
Grade Level	58				
7-12		8	100 *	0	0
9-12		22	61	14	39
10-12		9	64	5	36
Education of Teacher	58				
bachelors		26	68	12	32
masters		12	78	8	22
Number of Years Teaching Physical Education	59				
1-5		14	70	6	30
6-10		11	65	6	35
11-15		6	60	4	40
16-20		4	57	3	43
21-30		3	75	1	25
over 30		0	0	1	100
Class Size	60				
21-40 students		18	72	8	28
41 and over		22	89	12	11
Number of Days Classes are Scheduled	49				
1-3 days		15	77	11	23
4-5 days		17	72	6	28
Actual Teaching Time	58				
25-35 minutes		26	75 *	13	25
40-45 minutes		13	50	6	50
Type of Grade Used	58				
5 point or A-F		36	83	16	17
Per cent		2	50	2	50
S-U/P-F		1	50	1	50
Length of Marking Period	59				
6-7 weeks		16	42	4	58
8 weeks		8	50	8	50
9-10 weeks		15	65 *	8	35

TABLE II (continued)

Comparative Factors	Total N	Honor Roll Used N	Honor Roll Used %	Honor Roll Not Used N	Honor Roll Not Used %
Space for an Attitude Rating Scale	60				
yes		22	67	11	33
no		17	63	10	37
Are Objectives Discussed?	59				
yes		31	69	14	31
no		1	50	1	50
occasionally		6	50	6	50
Number of Written Tests Given	60				
no tests given		9	90 *	1	10
1-6 tests		14	60	11	40
7-15 tests		18	67	7	33
Method of Evaluating Skill in Team Sports	156				
standardized skill test		21	72	8	28
self-devised skill test		43	63	25	37
subjective rating		40	68	19	32
Method of Evaluating Skill in Individual Sports	157				
standardized skill test		18	62	11	38
self-devised skill test		43	64	24	36
subjective rating		40	66	21	34

* Influencing factor.

TABLE III

WHAT FACTORS APPEAR TO INFLUENCE THE INCIDENCE OF YEARLY FAILURES?

Failure/Non-Failures and Comparative Question	Total N	Comparative Factors							
Structural Grade Levels		7-12		9-12		10-12		Other	
		N	%	N	%	N	%	N	%
No failures	26	3	12	14	54	6	23	3	11
Failures	30	5	17	18	60	7	23	0	0
Class Size		21-40		41-60		Over 60			
		N	%	N	%	N	%		
No failures	25	8	32	16	64*	1	4		
Failures	30	14	47	10	33	6	20		
Discussion of Grade Discrepancies		Yes		No		Occasionally			
		N	%	N	%	N	%		
No failures	26	22	85	1	4	3	11		
Failures	30	23	77	5	17*	2	7		
Space for an Attitude Rating Scale		Yes		No					
		N	%	N	%				
No failures	26	15	58	11	42				
Failures	30	17	57	13	43				
Conference for Low Grades		Yes		No		Occasionally			
		N	%	N	%	N	%		
No failures	26	20	77	3	11	3	11		
Failures	30	15	50	6	20*	9	30		
Number of Written Tests Given		No Tests		1-6		7-15			
		N	%	N	%	N	%		
No failures	26	5	19	9	35	12	46*		
Failures	30	5	17	15	50*	10	33		

TABLE III (continued)

Failure/Non-Failures and Comparative Question	Total N	Comparative Factors					
Are Grades Based on Achievement, Effort or Improvement		Achievement		Effort		Improvement	
		N	%	N	%	N	%
No failures	54	19	35	22	41	13	24
Failures	78	24	31	26	33	28	36

Failure/Non-Failure		Influencing Factors					
Evaluation of Skill in Team Sports		Standardized Skill Tests		Self-devised Skill Tests		Subjective Rating	
		N	%	N	%	N	%
No failures	55	12	22	25	45	18	33
Failures	64	7	11	34	53	23	36
Evaluation of Skill in Individual Sports							
No failures	74	15	20	31	42	28	38
Failures	54	13	24	21	39	20	37

Percentage of Grade Allocated to Reflect:		0%		1-25%		26-50%		51-75%		76-100	
		N	%	N	%	N	%	N	%	N	%
Skill											
No failures	24	2	8	13	54	8	33	1	4	0	0
Failures	27	0	0	13	48	14	52*	0	0	0	0
Knowledge											
No failures	24	2	8	14	58	8	33	0	0	0	0
Failures	27	2	7	16	59	9	33	0	0	0	0
Behavior											
No failures	24	1	4	2	8	15	63	4	17	2	8
Failures	27	0	0	4	15	20	74	1	4	2	7

* Influencing factors.

TABLE IV

DOES THE TERMINAL DEGREE OF THE TEACHER AFFECT THE GRADING PROCEDURE?

Terminal Degree	Total N	Comparative Factors					
Discussion of Objectives		Yes		No		Occasionally	
		N	%	N	%	N	%
Bachelors	39	28	72	2	5	9	23
Masters	20	17	85	0	0	3	15
Opportunity for Student to State Grade							
Bachelors	39	3	8	32	82	4	10
Masters	20	1	5	19	95	0	0
Discussion of Grade Discrepancies							
Bachelors	38	27	71	6	16	5	13
Masters	20	15	75	2	10	3	15
Scheduled Conferences for Low Grades							
Bachelors	39	25	64	8	21	6	15
Masters	19	12	63	1	5	6	32

Who Holds Conference		P. E. Teacher Involved		Guidance Involved		Multitude	
		N	%	N	%	N	%
Bachelors	32	26	81	18	56	2	6
Masters	20	18	90	8	40	0	0

Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
Bachelors	39	9	23	17	44	13	33
Masters	20	1	5	7	35	12	60*

TABLE IV (continued)

Terminal Degree	Total N	Comparative Factor					
Reflected Objectives		Skill		Knowledge		Behavior	
		N	%	N	%	N	%
Bachelors	51	16	31	8	16	27	53
Masters	22	6	28	3	13	13	59

Method of Evaluating Skill in Team Sports		Standardized Skill Test		Self-devised Skill Test		Subjective Rating	
		N	%	N	%	N	%
Bachelors	73	13	18	32	44	28	38
Masters	46	9	20	24	52	13	28
Method of Evaluating Skill in Individual Sports							
Bachelors	97	18	19	40	41	39	40
Masters	58	12	21	25	43	21	36

Grades Based on Achievement, Effort or Improvement		Achievement		Effort		Improvement	
		N	%	N	%	N	%
Bachelors	27	9	33	14	52	4	15
Masters	20	8	40	10	50	2	10

Percentage of Grade Allocated to Reflect:		0		1-25%		26-50%		51-75%		76-100	
		N	%	N	%	N	%	N	%	N	%
Skill											
Bachelors	34	2	6	15	44	15	44	2	6	0	0
Masters	19	0	0	11	58	8	42	0	0	0	0
Knowledge											
Bachelors	34	4	12	18	53	12	35	0	0	0	0
Masters	19	0	0	14	74	5	26	0	0	0	0
Behavior											
Bachelors	34	4	12	18	53*	12	35	0	0	0	0
Masters	19	1	5	3	16	11	58*	3	16	1	5

* Influencing factors.

TABLE V

DOES THE STRUCTURAL GRADE LEVEL OF THE SCHOOL AFFECT THE GRADING PROCEDURE?

Structural Grade Level and Comparative Question	Total N	Comparative Factor					
Discussion of Objectives		Yes		No		Occasionally	
		N	%	N	%	N	%
7-12	8	7	87	0	0	1	12
9-12	35	24	69	0	0	11	31
10-12	14	13	93	1	7	0	0
Opportunity for Student to State Grade							
7-12	8	0	0	8	100	0	0
9-12	36	4	11	29	81	3	8
10-12	14	0	0	12	86	2	14
Discussion of Grade Discrepancies							
7-12	8	8	100*	0	0	0	0
9-12	35	26	74	5	14	4	11
10-12	14	8	57	3	21	3	21
Scheduled Conferences for Low Grades							
7-12	8	6	75*	0	0	2	25
9-12	36	22	61	9	9	5	14
10-12	14	8	57	2	2	4	29

Who Holds Conferences		P. E. Teacher Involved		Guidance Involved	
		N	%	N	%
7-12	8	7	87	1	42
9-12	38	23	61	15	39
10-12	17	11	65	6	35

Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
7-12	8	2	25	2	25	4	50*
9-12	36	6	17	13	36	17	47*
10-12	12	2	17	6	43	4	33

TABLE V (continued)

Structural Grade Level and Comparative Question	Total N	Comparative Factor					
Reflected Objectives		Skill		Knowledge		Behavior	
		N	%	N	%	N	%
7-12	12	6	50*	2	17	4	33
9-12	46	12	26	6	12	28	61
10-12	15	4	27	4	27	7	47
Method of Evaluating Skill in Team Sports		Standardized Skill Tests		Self-devised Skill Tests		Subjective Rating	
		N	%	N	%	N	%
7-12	19	4	21	9	47	6	32
9-12	67	11	16	38	57*	18	27
10-12	36	9	25	14	39	13	36
Method of Evaluating Skill in Individual Sports							
7-12	26	7	27	11	42	8	31
9-12	83	15	18	37	45	31	37
10-12	40	6	15	16	40	18	45
Grades Based on Achievement, Effort or Improvement		Achievement		Effort		Improvement	
		N	%	N	%	N	%
7-12	19	7	37	7	37	5	26
9-12	86	29	34	34	39	23	27
10-12	22	8	36	9	41	5	23
Percentage of Grade Allocated to Reflect:		0		1-25%		26-50%	
		N	%	N	%	N	%
Skill							
7-12	7	1	14	4	57*	2	29
9-12	35	8	9	22	63*	10	28
10-12	12	0	0	5	42	7	58*
Knowledge							
7-12	7	0	0	0	0	7	100*
9-12	35	2	6	18	51	14	40
10-12	12	0	0	6	50	5	42

Percentage of Grade Allocated to Reflect:		51-75%		76-100	
		N	%	N	%
Skill					
7-12	7	0	0	0	0
9-12	35	0	0	0	0
10-12	12	0	0	0	0
Knowledge					
7-12	7	0	0	0	0
9-12	35	1	3	0	0
10-12	12	1	8	0	0

TABLE V (continued)

Structural Grade Level and Comparative Question	Total N	Comparative Factor									
Percentage of Grade Allocated to Reflect:		0		1-25%		26-50%		51-75%		76-100	
		N	%	N	%	N	%	N	%	N	%
Behavior											
7-12	7	1	14	1	14	5	71	0	0	0	0
9-12	35	0	0	5	14	23	66	3	9*	4	11*
10-12	12	1	8	2	17	9	75	0	0	0	0

* Influencing factors.

TABLE VI

DOES THE CLASSIFICATION OF THE NUMBER OF GIRLS ENROLLED IN A SCHOOL AFFECT THE GRADING PROCEDURE?

Classification and Comparative Question	Total N	Comparative Factors					
		Yes		No		Occasionally	
		N	%	N	%	N	%
Are Objectives Discussed?							
100-400	6	5	83	1	17	0	0
400-600	25	18	72	0	0	7	28
600-800	10	7	70	2	20	1	10
800-1000	10	8	80	0	0	2	20
Is Student Given Opportunity to State Grade?							
100-400	6	0	0	6	100	0	0
400-600	25	3	12	20	80	2	8
600-800	10	0	0	9	90	1	10
800-1000	10	3	30	7	70	0	0
Is Student Given Opportunity to Discuss Grade Discrepancies?							
100-400	5	5	100	0	0	0	0
400-600	25	19	76	2	8	4	16
600-800	10	7	70	3	30	0	0
800-1000	10	6	60	1	10	3	30
Are Conferences Scheduled for Low Grades?							
100-400	6	4	67	1	17	1	17
400-600	25	17	68	3	12	5	20
600-800	10	6	60	1	10	3	30
800-1000	8	8	100	0	0	0	0

TABLE VI (continued)

Classification and Comparative Question	Total N	Comparative Factors			
Who Holds Conferences?		Physical Education Teacher Involved		Guidance Involved	
		N	%	N	%
100-400	8	5	62	3	37
400-600	32	19	59	13	41
600-800	10	6	60	4	40
800-1000	13	9	69	4	31
Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
100-400	6	0	0	4	67	2	33
400-600	25	5	20	10	40	10	40
600-800	10	1	10	4	40	5	50*
800-1000	6	2	33	2	33	2	33
Reflected Objectives		Skill		Knowledge		Behavior	
		N	%	N	%	N	%
100-400	8	2	25	2	25	4	50
400-600	31	11	35	1	3	19	61
600-800	16	5	31	5	31	6	38
800-1000	14	4	29	3	21	7	50
Method of Evaluating Skill in Team Sports		Standardized Skill Tests		Self-devised Skill Tests		Subjective Rating	
		N	%	N	%	N	%
100-400	14	1	7	7	50	6	43
400-600	56	9	16	24	43	23	41
600-800	21	3	14	9	43	9	43
800-1000	24	6	25	14	58	4	17

TABLE VI (continued)

Classification and Comparative Question	Total N	Comparative Factors					
Method of Evaluating Skill in Individual Sports		Standardized Skill Tests		Self-devised Skill Tests		Subjective Rating	
		N	%	N	%	N	%
100-400	16	1	6	8	50	7	44
400-600	65	11	17	25	38	29	45*
600-800	22	6	27	12	55	4	18
800-1000	36	9	25	16	44	11	31
Are Grades Based on Achievement, Effort or Improvement?		Achievement		Effort		Improvement	
		N	%	N	%	N	%
100-400	16	6	38	6	38	4	25
400-600	46	8	17	22	48	16	35
600-800	21	8	38	7	33	6	28
800-1000	15	7	47	7	47	1	7
Percentage of Grade Given to Reflect:		0		1-25%		26-50%	
		N	%	N	%	N	%
Skill							
100-400	6	0	0	3	50	3	50*
400-600	24	1	4	10	42	12	50*
600-800	9	0	0	2	22	7	78*
800-1000	11	0	0	7	64*	3	27
Knowledge							
100-400	6	0	0	3	50	3	50
400-600	24	3	12	18	75	3	12
600-800	9	0	0	2	22	7	78*
800-1000	11	0	0	5	45	6	55*
Behavior							
100-400	6	0	0	1	17	3	50
400-600	24	0	0	3	13	19	79
600-800	9	1	6	1	6	7	88
800-1000	11	1	9	1	9	6	55

Percentage of Grade Given to Reflect:	51-75%		76-100	
	N	%	N	%
Skill				
100-400	0	0	0	0
400-600	1	4	0	0
600-800	0	0	0	0
800-1000	1	9	0	0
Knowledge				
100-400	0	0	0	0
400-600	0	0	0	0
600-800	0	0	0	0
800-1000	0	0	0	0
Behavior				
100-400	2	33	0	0
400-600	1	4	1	4
600-800	0	0	0	0
800-1000	2	18	1	9

* Influencing factors.

TABLE VII

DOES THE PHYSICAL EDUCATION TEACHING EXPERIENCE AFFECT THE GRADING PROCEDURE?

Physical Education Experience and Comparative Question	Total N	Comparative Factors					
		Yes		No		Occasionally	
Are Objectives Discussed?		N	%	N	%	N	%
1-5 years	19	15	79	0	0	4	21
6-10 years	18	12	67	2	11	4	22
11-15 years	10	7	70	1	10	2	20
16-20 years	9	6	67	1	11	2	22
21-30 years	4	4	100	0	0	0	0
Opportunity for Student to State Grade							
1-5 years	26	3	11	21	81	2	8
6-10 years	15	0	0	15	100	0	0
11-15 years	8	0	0	8	100	0	0
16-20 years	6	1	17	5	83	0	0
21-30 years	4	0	0	3	75	1	25
Discussion of Grade Discrepancies							
1-5 years	18	13	72	3	17	2	11
6-10 years	16	13	81	1	6	2	13
11-15 years	11	7	64	3	27	1	9
16-20 years	8	7	88	0	0	1	2
21-30 years	3	1	33	1	33	1	33
Conferences for Low Grades							
1-5 years	19	12	63	3	16	4	21
6-10 years	17	12	70	3	18	2	12
11-15 years	11	6	55	4	36	1	9
16-20 years	7	4	57	0	0	3	43
21-30 years	4	3	75	0	0	1	25

TABLE VII (continued)

Physical Education Experience and Comparative Question	Total N	Comparative Factors					
Number of Written Tests		0		1-6		7-15	
		N	%	N	%	N	%
1-5 years	20	2	10	11	55	7	35
6-10 years	17	5	29	6	35	6	35
11-15 years	10	1	10	6	60	3	30
16-20 years	7	1	14	1	14	5	71*
21-30 years	5	0	0	2	40	3	60*
Reflected Objectives		Skill		Knowledge		Behavior	
		N	%	N	%	N	%
1-5 years	26	11	42*	4	15	11	42*
6-10 years	19	4	21	2	11	13	68
11-15 years	15	4	27	4	27	7	47
16-20 years	7	3	43*	1	14	3	43*
21-30 years	7	1	14	1	14	5	71
Method of Evaluating Skill in Team Sports		Standardized Tests		Self-devised Tests		Subjective Rating	
		N	%	N	%	N	%
1-5 years	44	7	16	22	50	15	34
6-10 years	38	8	21	17	45	13	34
11-15 years	18	3	17	9	50	6	33
16-20 years	16	3	19	8	50	5	31
21-30 years	9	1	11	5	56	3	33
Method of Evaluating Skill in Individual Sports							
1-5 years	56	12	21	21	38	23	41
6-10 years	60	11	18	26	43	23	38
11-15 years	15	2	13	9	60	4	27
16-20 years	17	5	29	7	41	5	29
21-30 years	9	0	0	5	56	4	44

TABLE VII (continued)

Physical Education Experience and Comparative Question	Total N	Comparative Factors					
Are Grades Based on Achievement, Effort or Improvement?		Achievement		Effort		Improvement	
		N	%	N	%	N	%
1-5 years	49	15	31	17	34*	17	34
6-10 years	33	13	39	14	42*	6	18
11-15 years	23	7	30	10	43*	6	26
16-20 years	10	5	50	5	50	0	0
21-30 years	10	5	50	5	50	0	0

Percentage of Grade Allocated to Reflect:		0		1-25%		26-50%		51-75%		76-100	
		N	%	N	%	N	%	N	%	N	%
Skill											
1-5 years	18	0	0	7	39	9	50*	2	11	0	0
6-10 years	16	1	6	8	50	7	44	0	0	0	0
11-15 years	10	0	0	6	60	4	40	0	0	0	0
16-20 years	6	0	0	3	50	3	50	0	0	0	0
21-30 years	5	0	0	2	40	3	60*	0	0	0	0
Knowledge											
1-5 years	18	1	6	11	61	6	33	0	0	0	0
6-10 years	16	3	19	10	63	3	18	0	0	0	0
11-15 years	10	0	0	5	50	5	50	0	0	0	0
16-20 years	6	0	0	4	67	2	33	0	0	0	0
21-30 years	5	0	0	3	60	2	40	0	0	0	0
Behavior											
1-5 years	18	2	11	4	22	11	61	1	5	0	0
6-10 years	16	0	0	1	6	11	69	3	19	1	6
11-15 years	10	0	0	0	0	9	90	1	10	0	0
16-20 years	6	0	0	3	50	3	50	1			
21-30 years	5	0	0	0	0	3	60	1	20	1	20

* Influencing factors.

TABLE VIII

DOES CLASS SIZE AFFECT THE GRADING PROCEDURE?

Class Size and Comparative Question	Total N	Comparative Factors					
Discussion of Objectives		Yes		No		Occasionally	
		N	%	N	%	N	%
21-40	26	20	77*	0	0	6	23
41-60	26	21	81*	1	4	4	15
Over 60	7	4	57	1	14	2	29
Opportunity for Student to State Grade							
21-40	22	1	5	18	82	3	13
41-60	24	2	8	20	83	2	8
Over 60	6	1	17	5	83	0	0
Discussion of Grade Discrepancies							
21-40	25	19	76	4	16	2	8
41-60	27	19	70	3	11	5	19
Over 60	7	5	71	1	14	1	14
Scheduled Conference for Low Grades							
21-40	26	18	69	6	23	2	8
41-60	27	16	59	4	15	7	26
Over 60	7	4	57	1	14	2	29
Who Holds Conference?		Physical Education Teacher Involved				Guidance Involved	
		N		%		N	%
21-40	36	18		50*		18	50
41-60	27	21		78		6	22
Over 60	8	5		62		3	37
Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
21-40	26	3	12	12	46	11	42*
41-60	28	7	25	8	29	13	46*
Over 60	6	0	0	5	83*	1	17

TABLE VIII (continued)

Class Size and Comparative Question	Total N	Comparative Factors					
Reflected Objectives		Skill N	Skill %	Knowledge N	Knowledge %	Behavior N	Behavior %
21-40	37	12	32	6	16	19	51
41-60	31	12	39	4	13	15	48
Over 60	8	2	25	0	0	6	75
Method of Evaluating Skill in Team Sports		Standardized Tests N	Standardized Tests %	Self-devised Tests N	Self-devised Tests %	Subjective Rating N	Subjective Rating %
21-40	64	12	19	31	48	21	33
41-60	49	10	20	23	47	16	33
Over 60	14	2	14	7	50	5	36
Method of Evaluating Skill in Individual Sports							
21-40	75	10	13	33	44	32	43
41-60	55	13	24	24	44	18	33
Over 60	22	5	23	9	41	8	36
Are Grades Based on Achievement, Effort or Improvement		Achievement N	Achievement %	Effort N	Effort %	Improvement N	Improvement %
21-40	50	19	38	19	38	12	24
41-60	57	20	35	21	37	16	28
Over 60	15	6	40	6	40	3	20

Percentage of Grade Allocated to Reflect:	0 N	0 %	k-25% N	k-25% %	26-50% N	26-50% %	51-75% N	51-75% %	76-100 N	76-100 %
Skill										
21-30	4	0	0	1	25	3	75*	0	0	0	0
31-40	21	0	0	12	57	9	43	0	0	0	0
41-50	16	2	12	6	38	8	50	0	0	0	0
51-60	7	0	0	1	14	4	57	2	29	0	0
Over 60	7	0	0	4	57	3	43	0	0	0	0

TABLE VIII (continued

Class Size and Comparative Question	Total N	Comparative Factors									
Percentage of Grade Allocated to Reflect:		N	%	N	%	N	%	N	%	N	%
Knowledge											
21-30	4	0	0	3	75*	1	25	0	0	0	0
31-40	21	2	9	10	48	9	43	0	0	0	0
41-50	16	2	12	8	50	6	38	0	0	0	0
51-60	7	0	0	5	71*	2	29	0	0	0	0
Over 60	7	0	0	7	100*	0	0	0	0	0	0
Behavior											
21-30	4	0	0	0	0	3	75	0	0	1	25
31-40	21	0	0	3	14	13	62	4	19	1	5
41-50	16	1	6	1	6	14	88	0	0	0	0
51-60	7	1	14	3	43	3	43	0	0	0	0
Over 60	7	0	0	1	14	4	57	1	14	1	14

* Influencing factors

TABLE IX

DOES THE NUMBER OF DAYS A CLASS IS SCHEDULED FOR PHYSICAL EDUCATION AFFECT THE GRADING PROCEDURE?

Number of Days and Comparative Question	Total N	Comparative Factors					
		Yes		No		Occasionally	
Discussion of Objectives		N	%	N	%	N	%
1-2 days	6	3	50	0	0	3	50
3 days	22	20	91	0	0	2	9
4-5 days	23	18	78	2	9	3	13
Opportunity for Student to State Grade							
1-2 days	6	2	33*	3	50	1	17
3 days	22	2	9	19	86	1	5
4-5 days	23	1	4	21	91	1	4
Discussion of Grade Discrepancies							
1-2 days	5	3	60	0	0	2	40
3 days	22	16	73	2	9	4	18
4-5 days	23	20	87	1	4	2	9
Scheduled Conference for Low Grades							
1-2 days	6	4	67	1	17	1	17
3 days	22	13	59	2	9	7	32
4-5 days	23	16	70	3	13	4	17

Who Holds Conference		Physical Education Teacher Involved		Guidance Involved	
		N	%	N	%
1-2 days	8	4	50*	4	50*
3 days	31	20	65	11	35
4-5 days	26	17	65	9	35

Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
1-2 days	6	2	33	2	33	2	33
3 days	21	4	19	11	52	6	28
4-5 days	24	2	8	9	38*	13	54*

TABLE IX (continued)

Number of Days and Comparative Question	Total N	Comparative Factors					
Reflected Objectives		Skill N	Skill %	Knowledge N	Knowledge %	Behavior N	Behavior %
1-2 days	9	3	33	0	0	6	67
3 days	26	8	31	4	15	14	54
4-5 days	32	10	31	5	16	17	53

Method of Evaluating Skill in Team Sports		Standardized Skill Tests N	Standardized Skill Tests %	Self-devised Skill Tests N	Self-devised Skill Tests %	Subjective Rating N	Subjective Rating %
1-2 days	14	1	7	8	57	5	36
3 days	50	12	24	24	48	14	28
4-5 days	50	8	16	24	48	18	36
Method of Evaluating Skill in Individual Sports							
1-2 days	12	2	17	4	33	6	50*
3 days	60	12	20	26	43*	22	37
4-5 days	67	14	21	28	42*	25	37

Are Grades Based on Achievement, Effort or Improvement?		Achievement N	Achievement %	Effort N	Effort %	Improvement N	Improvement %
1-2 days	11	3	27	4	36	4	36
3 days	57	19	33	19	33	19	33
4-5 days	55	19	34	23	42	13	24

Percentage of Grade Allocated to Reflect:		0 N	0 %	1-25% N	1-25% %	26-50% N	26-50% %	51-75% N	51-75% %	76-100 N	76-100 %
Skill											
1-2 days	6	0	0	2	33	4	67*	0	0	0	0
3 days	20	0	0	12	60*	7	35	1	5	0	0
4-5 days	24	1	4	12	50*	10	42	1	4	0	0
Knowledge											
1-2 days	6	1	17	5	83*	0	0	0	0	0	0
3 days	20	0	0	11	55	9	45	0	0	0	0
4-5 days	24	0	8	16	67	6	25	0	0	0	0

TABLE IX (continued)

Number of Days and Comparative Question	Total N	Comparative Factors									
Percentage of Grade Allocated to Reflect:		0		1-25%		26-50%		51-75%		76-100	
		N	%	N	%	N	%	N	%	N	%
Behavior											
1-2 days	6	0	0	0	0	0	0	6	100*	0	0
3 days	20	1	5	3	15	11	55	3	15	2	10
4-5 days	24	1	4	3	13	17	71	2	8	1	4

*Influencing factors.

TABLE X

DOES THE ACTUAL CLASS TIME AFFECT THE GRADING PROCEDURE?

Class Time and Comparative Question	Total N	Comparative Factors					
		Yes		No		Occasionally	
Discussion of Objectives		N	%	N	%	N	%
25-30 minutes	20	16	80	0	0	4	20
35 minutes	19	16	84	0	0	3	16
40-45 minutes	18	12	67	2	11	4	22
Opportunity for Student to State Grade							
25-30 minutes	20	0	0	17	85	3	15
35 minutes	18	1	5	16	89	1	5
40-45 minutes	19	1	5	17	89	1	5
Discussion of Grade Discrepancies							
25-30 minutes	19	15	79	3	16	1	5
35 minutes	19	13	68	4	21	2	11
40-45 minutes	19	14	74	1	5	4	21
Scheduled Conferences for Low Grades							
25-30 minutes	20	13	65	5	25	2	10
35 minutes	20	11	55	3	15	6	30
40-45 minutes	18	12	67	2	11	4	22

Who Holds Conference		Physical Education Teacher Involved		Guidance Involved	
		N	%	N	%
25-30 minutes	21	13	62	8	38
35 minutes	28	17	61	11	39
40-45 minutes	21	13	62	8	38

TABLE X (continued)

Class Time and Comparative Question	Total N	Comparative Factors					
Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
25-30 minutes	20	3	15	8	40	9	45
35 minutes	20	0	0	11	55*	9	45*
40-45 minutes	18	5	28	7	39	6	33
Reflected Objectives		Skill		Knowledge		Behavior	
		N	%	N	%	N	%
25-30 minutes	29	10	34	5	17	14	48
35 minutes	27	8	30	3	11	16	59
40-45 minutes	18	6	33	3	17	9	50
Method of Evaluating Skill in Team Sports		Standardized Skill Tests		Self-devised Skill Tests		Subjective Rating	
		N	%	N	%	N	%
25-30 minutes	42	6	14	21	50	15	36
35 minutes	47	9	19	22	47	16	34
40-45 minutes	34	6	18	16	47	12	35
Method of Evaluating Skill in Individual Sports							
25-30 minutes	47	8	17	22	47	17	36
35 minutes	64	11	17	28	44	25	39
40-45 minutes	40	11	27	15	37	14	35
Are Grades Based on Achievement, Effort or Improvement		Achievement		Effort		Improvement	
		N	%	N	%	N	%
25-30 minutes	46	16	35	19	41	11	24
35 minutes	51	18	35	20	39	13	25
40-45 minutes	31	11	35	11	35	9	29

TABLE X (continued)

Class Time and Comparative Question	Total N	Comparative Factors									
Percentage of Grade Allocated to Reflect:		0		1-25%		26-50%		51-75%		76-100	
		N	%	N	%	N	%	N	%	N	%
Skill											
25-30 minutes	21	2	10	7	33	11	52*	1	5	0	0
35 minutes	21	0	0	12	57*	8	38	1	5	0	0
40-45 minutes	12	0	0	5	42	7	58*	0	0	0	0
Knowledge											
25-30 minutes	21	3	14	12	57	6	29	0	0	0	0
35 minutes	21	0	0	16	76	5	24	0	0	0	0
40-45 minutes	12	1	8	5	42	6	50*	0	0	0	0
Behavior											
25-30 minutes	21	0	0	4	19	15	71	1	5*	1	5*
35 minutes	21	2	9	1	5	12	57	4	19*	2	9*
40-45 minutes	12	0	0	2	17	10	83*	0	0	0	0

* Influencing factor.

TABLE XI

WHAT IS THE EFFECT OF CO-EDUCATIONAL ACTIVITIES ON THE GRADING PROCEDURE?

Co-educational Activities and Comparative Question	Total N	Comparative Factors					
		Yes		No		Occasionally	
Discussion of Objectives		N	%	N	%	N	%
Co-educational activities	22	19	86	1	5	2	9
No co-educational activities	36	26	72	1	3	9	25
Opportunity for Student to State Grade							
Co-educational activities	22	0	0	20	91	2	9
No co-educational activities	37	3	8	31	84	3	8
Discussion of Grade Discrepancies							
Co-educational activities	21	17	81	2	9	2	9
No co-educational activities	37	28	76	4	11	5	13
Scheduled Conferences for Low Grades							
Co-educational activities	22	14	63	1	5	7	32
No co-educational activities	37	23	62	9	24	5	14

Who Holds Conference		Physical Education Teacher Involved		Guidance Involved	
		N	%	N	%
Co-educational activities	22	15	68*	7	32
No co-educational activities	36	16	44	20	56*

TABLE XI (continued)

Co-educational Activities and Comparative Question	Total N	Comparative Factors					
Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
Co-educational activities	22	3	14	6	27	13	59*
No co-educational activities	37	5	13	21	58*	11	30
Reflected Objectives		Skill		Knowledge		Behavior	
		N	%	N	%	N	%
Co-educational activities	31	12	39	5	16	14	45
No co-educational activities	44	12	27	6	14	26	59
Are Grades Based on Achievement, Effort or Improvement		Achievement		Effort		Improvement	
		N	%	N	%	N	%
Co-educational activities	46	17	37	17	37	12	26
No co-educational activities	82	27	33	34	41	21	26
Percentage of Grade Allocated to Reflect:		0		1-25%		26-50%	
		N	%	N	%	N	%
Skill							
Co-educational activities	20	0	0	7	35	12	60*
No co-educational activities	34	1	3	18	53*	14	41
Knowledge							
Co-educational activities	20	1	5	12	60	7	35
No co-educational activities	34	2	6	21	62	10	29
Behavior							
Co-educational activities	20	2	10	2	10	15	75
No co-educational activities	34	0	0	4	12	24	70

	51-75%		76-100	
	N	%	N	%
Skill				
Co-educational activities	1	5	0	0
No co-educational activities	1	3	0	0
Knowledge				
Co-educational activities	0	0	0	0
No co-educational activities	0	0	1	3
Behavior				
Co-educational activities	1	5	0	0
No co-educational activities	3	9	3	9

*Influencing factor.

TABLE XII

DOES THE LENGTH OF THE MARKING PERIOD AFFECT GRADING PROCEDURES?

Marking Period Length and Comparative Question	Total N	Comparative Factors					
		Yes		No		Occasionally	
Discussion of Objectives		N	%	N	%	N	%
6 or 8 weeks	32	23	72	1	3	8	25
9-10 weeks	24	19	79	1	4	4	17
Opportunity for Student to State Grade							
6 or 8 weeks	33	4	12	25	76	4	12
9-10 weeks	23	0	0	23	100	0	0
Discussion of Grade Discrepancies							
6 or 8 weeks	34	24	70	3	9	7	21
9-10 weeks	22	16	73	5	23	1	4
Scheduled Conferences for Low Grades							
6 or 8 weeks	34	22	65	4	12	8	23
9-10 weeks	23	15	70	6	22	2	8
Who Holds Conference		Physical Education Teacher Involved				Guidance Involved	
		N		%		N	%
6 or 8 weeks	38	23		61		15	39
9-10 weeks	27	16		59		11	41
Number of Written Tests		0		1-6		7-15	
		N	%	N	%	N	%
6 or 8 weeks	34	6	18	14	41	14	41
9-10 weeks	23	4	17	10	43	9	39

TABLE XII (continued)

Marking Period Length and Comparative Question	Total N	Comparative Factors					
Reflected Objectives		Skill N	Skill %	Knowledge N	Knowledge %	Behavior N	Behavior %
6 or 8 weeks	43	13	30	5	12	25	58
9-10 weeks	33	12	36	7	21	14	42

Method of Evaluating Skill in Team Sports		Standardized Skill Test N	Standardized Skill Test %	Self-devised Skill Test N	Self-devised Skill Test %	Subjective Rating N	Subjective Rating %
6 or 8 weeks	75	12	16	38	51	25	33
9-10 weeks	49	12	24	21	43	16	33
Method of Evaluating Skill in Individual Sports							
6 or 8 weeks	67	15	22	36	54	16	24
9-10 weeks	64	11	17	30	47	23	36

Are Grades Based on Achievement, Effort or Improvement		Achievement N	Achievement %	Effort N	Effort %	Improvement N	Improvement %
6 or 8 weeks	74	26	35	29	39	19	26
9-10 weeks	50	17	34	20	40	13	26

Percentage of Grade Allocated to Reflect:		0 N	0 %	1-25% N	1-25% %	26-50% N	26-50% %	51-75% N	51-75% %	76-100 N	76-100 %
Skill											
6 or 8 weeks	31	0	0	15	48	14	45	2	6	0	0
9-10 weeks	23	2	9	9	39	12	52	0	0	0	0
Knowledge											
6 or 8 weeks	31	1	3	20	64	10	32	0	0	0	0
9-10 weeks	23	3	13	12	52	8	35	0	0	0	0
Behavior											
6 or 8 weeks	31	1	3	4	13	21	68	2	6	3	10
9-10 weeks	23	1	4	4	17	16	70	2	9	0	0

TABLE XIII

DOES THE USE OF A SPACE FOR RATING ATTITUDE AFFECT THE GRADING PROCEDURE?

Attitude Space and Comparative Question	Total N	Comparative Factors					
Discussion of Objectives		Yes		No		Occasionally	
		N	%	N	%	N	%
Space - yes	34	28	82	2	6	4	12
Space - no	25	17	68	0	0	8	32
Opportunity for Student to State Grade							
Space - yes	35	3	8	30	86	2	6
Space - no	26	1	4	22	85	3	11
Discussion of Grade Discrepancies							
Space - yes	36	26	72	6	17	4	11
Space - no	24	16	67	4	16	4	16
Scheduled Conferences for Low Grades							
Space - yes	35	22	63	5	14	8	23
Space - no	26	16	62	6	23	4	15

Who Holds Conferences		Physical Teacher Involved		Education		Guidance Involved	
		N		%		N	%
Space - yes	40	25		62		15	37
Space - no	31	19		61		12	39

Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
Space - yes	35	5	14	17	49*	13	37
Space - no	26	5	19	9	35	12	46*

TABLE XIII (continued)

Attitude Space and Comparative Question	Total N	Comparative Factors					
Reflected Objectives		Skill N	Skill %	Knowledge N	Knowledge %	Behavior N	Behavior %
Space - yes	45	15	33	8	18	22	49
Space - no	34	10	29	4	12	20	59

Method of Evaluating Skill in Team Sports		Standardized Skill Test N	Standardized Skill Test %	Self-devised Skill Test N	Self-devised Skill Test %	Subjective Rating N	Subjective Rating %
Space - yes	80	14	17	36	45	30	37
Space - no	52	10	19	17	33	14	27
Method of Evaluating Skill in Individual Sports							
Space - yes	102	18	18	43	42	41	40
Space - no	57	11	19	26	46	20	35

Are Grades Based on Achievement, Effort or Improvement		Achievement N	Achievement %	Effort N	Effort %	Improvement N	Improvement %
Space - yes	78	27	35	31	40	20	26
Space - no	57	20	35	22	39	15	26

Percentage of Grade Allocated to Reflect:		0 N	0 %	1-25% N	1-25% %	26-50% N	26-50% %	51-75% N	51-75% %	76-100 N	76-100 %
Skill											
Space - yes	31	2	6	13	42	15	48	1	3	0	0
Space - no	26	0	0	13	50	12	46	1	4	0	0
Knowledge											
Space - yes	31	3	10	16	52	12	39	0	0	0	0
Space - no	26	1	4	18	70	7	27	0	0	0	0
Behavior											
Space - yes	31	1	3	4	13	23	74	2	6	1	3
Space - no	26	0	0	4	15	17	65	3	12	2	8

* Influencing factor.

TABLE XIV

DOES WHO DETERMINE THE METHOD OF RECORDING GRADES INFLUENCE THE EVALUATION PROCESS?

Person Involved and Comparative Question	Total N	Comparative Factors			
Space for Attitude Rating Scale		Yes		No	
		N	%	N	%
Physical education involved	13	5	38	8	62*
Administration involved	37	25	68*	12	32
Use of Grade in Honor Roll					
Physical education involved	13	9	69	4	31
Administration involved	36	26	72	10	28
Use of Grade in Overall Average					
Physical education involved	13	9	69	4	31
Administration involved	35	24	69	11	31

Scheduled Conference for Low Grades		Yes		No		Occasionally	
		N	%	N	%	N	%
Physical education involved	14	7	50	3	21	4	29
Administration involved	35	23	66	6	17	6	17

Number of Written Tests Given		0		1-6		7-15	
		N	%	N	%	N	%
Physical education involved	13	2	15	6	46	5	38
Administration involved	41	5	12	17	41	19	46

TABLE XIV (continued)

Person Involved and Comparative Question	Total N	Comparative Factors									
Percentage of Grade Allocated to Reflect:											
		0		1-25%		26-50%		51-75%		76-100	
Skill		N	%	N	%	N	%	N	%	N	%
Physical education involved	12	0	0	4	33	8	67*	0	0	0	0
Administration involved	31	0	0	15	48*	14	45	2	6	0	0
Knowledge											
Physical education involved	12	0	0	7	58	5	42	0	0	0	0
Administration involved	32	2	6	16	50	14	44	0	0	0	0
Behavior											
Physical education involved	12	0	0	2	17	9	75	1	8	0	0
Administration involved	32	2	6	6	19	20	63	2	6	2	6

* Influencing factor.

TABLE XV

WHAT ARE SOME FACTORS THAT MIGHT AFFECT THE ADDITIONAL USE OF STUDENT EVALUATION?

Use of Evaluation and Comparative Question	Total N	Comparative Factors			
Terminal Degree		Bachelors		Masters	
		N	%	N	%
Grades	31	22	71	9	29
School clubs, honors	12	8	67	4	33
Guidance, college	6	4	67	2	33
Physical education classes	3	2	67	1	33
Structural Grade Level		7-12		9-12		10-12	
		N	%	N	%	N	%
Grades	31	6	19	20	65	5	16
School clubs, honors	12	1	8	6	50	5	42*
Guidance, college	7	1	14	5	71	1	14
Physical education classes	3	0	0	2	67	1	33
Method of Evaluating Skill in Team Sports		Standardized Skill Test		Self-devised Skill Test		Subjective Test	
		N	%	N	%	N	%
Grades	77	10	13	38	49	29	38
School clubs, honors	21	9	43	8	38	4	19
Guidance, college	12	0	0	8	67	4	33
Physical education classes	4	1	25	2	50	1	25
Method of Evaluating Skill in Individual Sports							
Grades	85	15	18	36	42	34	40
School clubs, honors	31	8	26	13	42	10	32
Guidance, college	16	3	19	8	50	5	31
Physical education classes	5	0	0	3	60	2	40

* Influencing factor.

TABLE XVI

WHAT ARE THE PREDOMINATE FACTORS USED IN EVALUATING SKILL, KNOWLEDGE, AND BEHAVIOR?

Factors	Total Sample N - 46		7-12 N-7		9-12 N-26		10-12 N-10		Other N-3	
Motor Skill	N	%	N	%	N	%	N	%	N	%
Standardized skill test	13	28	2	29	5	19	5	50	1	33
Self-devised skill test	42	91*	7	100	24	92	8	80	3	100
Skill in a game situation	38	83*	5	71	20	77	10	100	3	100
Daily performance of skill	39	85*	6	86	21	81	9	90	3	100
Use of strategy	30	65	4	57	16	62	7	70	3	100
Physical Fitness Skills										
Standardized physical fitness test	16	35	4	57	9	35	2	20	1	33
Self-devised physical fitness test	20	43	4	57	10	38	5	50	1	33
Skill Knowledge										
Knowledge of rules	39	85*	5	71	23	88	9	90	2	67
Knowledge of techniques	32	70*	5	71	19	73	6	60	2	67

TABLE XVI (continued)

Factors	Total Sample N - 46		7-12 N-7		9-12 N-26		10-12 N-10		Other N-3	
General Knowledge	N	%	N	%	N	%	N	%	N	%
Safety factors	33	72*	6	86	16	62	8	80	3	100
History or post material	18	39	5	71	8	31	3	30	2	67
Knowledge of physical education objective	14	30	3	43	7	27	4	40	0	0
Maintaining physical fitness	14	30	3	43	9	35	1	10	1	33
Rules and Regulations										
Attendance	30	65	5	71	16	62	8	80	1	33
Number of excuses	28	61	5	71	15	58	7	70	1	33
Gum chewing	40	87*	6	86	23	88	9	90	2	67
Jewelry	35	76*	6	86	19	73	8	80	2	67
Dress	32	70*	6	86	25	96	9	90	2	67
Clean uniform	41	89*	6	86	24	92	9	90	2	67
Lateness	41	89*	6	86	24	92	9	90	2	67
Showers	26	57	6	86	15	58	4	40	1	33
Participation										
Sportsmanship	38	83*	7	100	21	81	8	80	2	67
Respect for teacher	37	80*	7	100	21	81	7	70	2	67
Respect for peers	37	80*	7	100	21	81	7	70	2	67

TABLE XVI (continued)

Factors	Total Sample N - 46		7-12 N-7		9-12 N-26		10-12 N-10		Other N-3	
	N	%	N	%	N	%	N	%	N	%
Initiative	36	78*	6	86	20	77	8	80	2	67
Leadership	34	74*	7	100	18	69	7	70	2	67
Cooperation	39	85*	7	100	22	85	8	80	2	67
Health factor	25	54	5	71	12	46	6	60	2	67
Safety factor	29	63	6	86	14	54	7	70	2	67
Responsibility	32	70*	7	100	15	58	8	80	2	67

*Predominate factors.

TABLE XVII

WHAT IS THE MOST PREDOMINATE METHOD USED TO RECORD GRADES?

Systems Used	Total Sample N - 59		7-12 N-6		9-12 N-36		10-12 N-14		Other N-3	
	N	%	N	%	N	%	N	%	N	%
10 point or percentage system	5	8	0	0	3	8	1	7	1	33
5 point or A-F/A-E	50	85*	6	100	29	81	13	93	2	67
3 point or H-N-U/O-P-F	2	3	0	0	2	6	0	0	0	0
2 point or P-F/S-U	2	3	0	0	2	6	0	0	0	0

*Predominate method.

TABLE XVIII

WHICH METHOD OF RECORDING GRADES BEST EVALUATES A STUDENT'S WORK IN PHYSICAL EDUCATION?

Systems Used	Total N	Prefer Method Now Using		Prefer Another Method	
		N	%	N	%
10 point or percentage system	5	4	80	1	20
5 point or A-F/A-E	50	46	92	4	8
3 point or H-N-U/O-P-F	2	1	50	1	50
2 point or P-F/S-U	2	0	0	2	100

TABLE XIX

FACTORS AFFECTING THE ACHIEVEMENT OF OBJECTIVES

Factors	Total Sample N - 36		7-12 N-5		9-12 N-22		10-12 N-8		Other N-1	
	N	%	N	%	N	%	N	%	N	%
Class size	19	53	4	80	12	55	3	38	0	0
Gym space	11	31	1	20	9	41	1	13	0	0
Field space	5	14	0	0	3	14	2	25	0	0
Facilities and equipment	12	33	2	40	8	36	1	13	1	100
Time schedule	2	6	0	0	2	9	0	0	0	0
School attitude	2	6	0	0	2	9	0	0	0	0

TABLE XX

WHAT ARE THE REFLECTED PRIMARY OBJECTIVES?
WHAT ARE THE OBJECTIVES SOUGHT?

Reflected Objectives N - 59	N	%	Sought Objectives N - 246 (sample N-49)	N	%
Skill	24	41	Skill	69	28
Knowledge	12	20	Knowledge	30	12
Behavior	43	73	Behavior	71	29
Varies from activity to activity	2	3	Not gradeable	76	31

TABLE XXI

DOES THE FREQUENCY OF CERTAIN STATED OBJECTIVES AFFECT THE EVALUATION PROCESS?

Comparative Question	Total N	Frequency of Stated Objective							
		Skill		Knowledge		Behavior		Not Gradeable	
		N	%	N	%	N	%	N	%
Discussion of Objectives									
Yes	183	55	30	22	12	51	28	55	30
No	18	4	22	3	17	4	22	7	39*
Occasionally	33	6	18	3	9	10	30	14	42*
Number of Written Tests									
0	21	7	33	0	0	6	29	8	38
1-6	101	29	29	14	14	30	30	28	27
7-15	120	34	28	17	14	33	28	36	30
Are Grades Based on Achievement, Effort or Improvement									
Achievement	183	53	29	22	12	48	26	60	33
Effort	206	59	29	25	12	56	27	66	32
Improvement	151	40	26	16	11	39	25	56	37
Method of Evaluating Skill in Team Sports									
Standardized	63	18	29	13	20	17	27	15	24
Self-devised	221	63	29	27	12	64	29	67	30
Subjective	142	41	29	21	15	39	27	41	29
Method of Evaluating Skill in Individual Sports									
Standardized	93	33	35*	11	12	23	25	26	28
Self-devised	227	64	28	29	13	65	29	69	30
Subjective	158	42	27	22	14	43	27	51	32

*Influencing factors.

TABLE XXII

DOES THE EMPHASIS OF CERTAIN REFLECTED OBJECTIVES AFFECT GRADING METHODS?

Emphasis and Comparative Question	Total N	Comparative Factors					
Discussion of Objectives		Yes		No		Occasionally	
		N	%	N	%	N	%
Skill	24	20	83	0	0	4	17
Knowledge	12	10	83	0	0	2	17
Behavior	43	32	74	1	2	10	23
Number of Written Tests		0		1-6		7-15	
		N	%	N	%	N	%
Skill	22	5	23	8	36	9	41
Knowledge	12	1	8	6	50*	5	42
Behavior	43	8	19	19	44	16	37
Are Grades Based on Achievement, Effort or Improvement		Achievement		Effort		Improvement	
		N	%	N	%	N	%
Skill	54	18	33	19	35	17	31
Knowledge	22	7	32	9	41	6	27
Behavior	99	34	34	39	40	26	25
Method of Evaluating Skill in Team Sports		Standardized Skill Test		Self-devised Skill Test		Subjective Rating	
		N	%	N	%	N	%
Skill	57	9	16	25	44	23	40
Knowledge	26	5	19	13	50	8	31
Behavior	88	11	13	46	52	31	35
Method of Evaluating Skill in Individual Sports							
Skill	61	12	19	26	43	23	38
Knowledge	31	5	16	15	48	11	35
Behavior	114	16	14	56	49	42	37

TABLE XXIII

MEAN PERCENTAGE PLACED ON SKILL IN DETERMINING A STUDENT'S GRADE

	Major Area		Subdivision		Subdivision	
	SKILL		Motor Skill		Physical Fitness Skill	
	N	%	N	%	N	%
Total sample	55	32	46	27	46	5
7-12	7	43	7	36	7	6
9-12	33	30	26	24	26	6
10-12	12	32	10	28	10	4
Other	3	27	3	25	3	2
	KNOWLEDGE		Skill Knowledge		General Knowledge	
Total sample	53	27	43	19	43	8
7-12	6	29	5	17	5	8
9-12	32	26	26	19	26	8
10-12	12	33	9	22	9	11
Other	3	17	3	12	3	5
	BEHAVIOR		Rules-Regulation		Participation	
Total sample	55	46	48	22	48	24
7-12	6	38	6	18	6	20
9-12	35	49	31	24	31	24
10-12	11	38	8	16	8	23
Other	3	57	3	27	3	30

TABLE XXIV

RULES OR REGULATIONS THAT COULD CAUSE STUDENT TO FAIL REGARDLESS OF SKILL OR KNOWLEDGE

Rules and Regulations	Total Sample N - 54		7-12 N-6		9-12 N-32		10-12 N-12		Other N-3	
	N	%	N	%	N	%	N	%	N	%
General rules and regulations	14	26	3	50	6	19	4	33	1	33
A set number of times unprepared	14	26	0	0	11	34	3	25	0	0
Attitude, effort, cooperation	7	13	0	0	5	16	2	17	0	0
Discipline, cutting class	5	9	0	0	2	6	2	17	1	33
Non-participation (absences, unprepared)	25	46	2	33	14	44	7	58	2	67
None	4	7	1	17	2	6	0	0	1	33

APPENDIX B

Questionnaire Data Tables

Sample of Questionnaire

TABLE XXV

RAW DATA
GENERAL INFORMATION SECTION OF QUESTIONNAIRE

Questions on Questionnaire	Total Number of Responses N	Per Cent
I. General Information		
A. School Plant		
1. Type of high school	61	
Public	60	98
Parochial	0	0
Private	1	2
2. Grade levels	61	
7-12	8	13
9-12	36	59
10-12	14	23
Other	3	5
3. Girls enrolled	55	
100-400	6	11
400-600	25	45
600-800	10	18
800-1000	11	20
Over 1000	3	5
B. Teacher		
1a. Degree held	58	
Bachelors	38	66
Masters	20	34
Doctorate	0	0
1b. Area of concentration	38	
Bachelors in physical education	36	95
Bachelors not in physical education	2	5
1c. Area of concentration	20	
Masters in physical education	15	75
Masters not in physical education	5	25

TABLE XXV (continued)

Questions on Questionnaire	Total Number of Responses N	Per Cent
2. Length of time since receiving last degree	59	
1-5 years	25	42
6-10 years	15	25
11-15 years	6	10
16-20 years	7	12
21-30 years	6	10
3. Number of years teaching	59	
1-5 years	20	34
6-10 years	18	31
11-15 years	8	13
16-20 years	8	13
21-30 years	3	5
Over 30	2	3
4. Number of years teaching physical education	60	
1-5 years	19	32
6-10 years	18	30
11-15	11	18
16-20	6	10
21-30	5	8
Over 30	1	2
5. Number of years teaching in present school	61	
1-5 years	33	54
6-10 years	16	26
11-15 years	7	11
16-20 years	4	7
21-30 years	0	0
Over 30 years	1	2
C. Physical education class structure		
1. Average class size	59	
1-20 students	0	0
21-30 students	4	7
31-40 students	22	37
41-50 students	18	30
51-60 students	8	13
Over 60 students	7	12

TABLE XXV (continued)

Questions on Questionnaire	Total Number of Responses N	Per Cent
2. Number of days the classs are scheduled each week	59	
1 day	1	2
2 days	5	8
3 days	23	39
4 days	6	10
5 days	19	32
Varies	5	8
3. Actual teaching time for 4. each class (class time minus dressing time)	58	
25 minutes	5	8
30 minutes	16	28
35 minutes	22	38
40 minutes	10	17
45 minutes	5	8
5. Are classes scheduled according to skill?	61	
Yes	2	3
No	59	97
6. Are classes scheduled according to grade level?	61	
Yes	57	93
No	4	7
7. Are co-educational classes regularly scheduled?	58	
Yes	22	38
No	36	62

TABLE XXVI

RAW DATA
REPORT CARD INFORMATION SECTION OF QUESTIONNAIRE

Questions on Questionnaire	Total Number of Responses N	Per Cent
II. Report Card Information		
A. Method		
1. Which system of recording grades is used in physical education?	61	
A-F	48	79
Per cent	4	7
5 point	5	8
Pass/fail	1	1
Satisfactory/unsatisfactory	1	1
Other	2	3
2. Is the method for recording grades different in other academic classes?	61	
Yes	4	7
No	57	93
3. How long is each academic marking period?	57	
6 weeks	17	30
7 weeks	1	2
8 weeks	16	28
9 weeks	11	19
10 weeks	12	21
4. Is the physical education report card issued every marking period?	60	
Yes	58	97
No	2	3
5. Do the boys receive the same type of physical education grade as the girls?	58	
Yes	54	93
No	4	7

TABLE XXVI (continued

Questions on Questionnaire	Total Number of Responses N	Per Cent
6. Does the physical education report card provide space for checking or rating students on attitude, behavior, personality development, or work habits, etc.?	61	
Yes	35	57
No	26	43
7. Who determines the method for recording grades?	51	
Physical education teachers	10	20
Administration	34	67
Physical education and administration	7	13
8. Has the Physical Education Department used any other method of recording grades during the last ten years?	61	
Yes	15	'25
No	46	75
10. Do you agree with the change?	15	
Yes	14	93
No	1	7
B. General		
1. Is a passing grade in physical education every year a graduation requirement?	61	
Yes	59	97
No	2	3
2. Is the physical education grade considered in determining honor roll status?	60	
Yes	41	68
No	19	32

TABLE XXVI (continued

Questions on Questionnaire	Total Number of Responses N	Per Cent
3. Is the physical education grade considered in computing the overall grade point average?	60	
Yes	39	65
No	21	35
4. What is the percentage of 5. yearly failures for 1965-66?	56	
0 percentage	26	46
1-6 percentage	30	54
6. Which method of recording grades do you feel best evaluates a student's work in physical education?	60	
Method now using	51	85
A different method	9	15

TABLE XXVII

RAW DATA
EVALUATION SECTION OF QUESTIONNAIRE

Questions on Questionnaire	Total Number of Responses N	Per Cent
III. Evaluation		
A. Methods - overall		
1. Are the objectives for each activity discussed?	61	
Yes	45	74
No	4	6
Occasionally	12	20
2. Is the student given an opportunity to state the grade he thinks he has earned prior to receiving the teacher's grade?	61	
Yes	4	7
No	52	85
Occasionally	5	8
3. Is a conference held with the student to discuss any discrepancies between the grade assigned and the grade expected?	60	
Yes	44	73
No	8	13
Occasionally	8	13
4. Is your evaluation of the student used for any purposes other than for grading?	55	
No	33	60
School clubs and honors	12	22
Guidance, college	7	13
Physical education classes	3	5
5. Are special conferences scheduled with the student to discuss low grades?	61	
Yes	38	62
No	11	18
Occasionally	12	20

TABLE XXVII (continued)

Questions on Questionnaire	Total Number of Responses N	Per Cent
6. If special conferences are held, who holds the conferences?	53	
Physical education teacher	24	45
Guidance department	7	13
Combination of physical education teacher and guidance	20	38
Teacher, guidance, parent, principal	2	4
B. Methods - specific		
1. How many written tests are given throughout the year?	61	
0	10	16
1-6	26	43
7-15	25	41
2. Method of evaluation in team sports	122	
Standardized skill test	24	20
Self-devised skill test	61	50
Subjective rating	37	30
Method of evaluation in individual sports	149	
Standardized skill test	28	19
Self-devised skill test	64	43
Subjective rating	57	38

TABLE XXVIII

RAW DATA
GRADING FACTORS SECTION OF QUESTIONNAIRE

Areas Used in Grading	Total Number of Responses N	Mean Weight Placed on Area Per Cent
IV. Grading Factors		
A. Specific		
1. What is the average percentage placed on each area?		
Skill factors	55	31.73
Motor skill	46	27.20
Physical fitness	46	5.48
Knowledge factors	53	27.34
Skill knowledge	43	18.93
General knowledge	43	8.02
Behavior-attitude	55	45.56
Rules-regulations	48	22.20
Participation	48	23.55
2. What factors are used in evaluating the three areas of skill, knowledge, and behavior-attitude		
Motor skill	46	
Standardized skill test	13	28
Self-devised skill test	42	91
Ability to use skill in a game situation	38	83
Daily performance of skill	39	85
Use of strategy	30	65
Others	4	9
Physical fitness	46	
Standardized physical fitness test	16	35
Self-devised physical fitness test	20	43
Skill knowledge	46	
Knowledge of rules - written	39	85
Knowledge of skill technique written	32	70

TABLE XXVIII (continued)

Areas Used in Grading	Total Number of Responses N	Mean Weight Placed on Area Per Cent
General knowledge - written	46	
Safety factors	33	72
Maintaining physical fitness	14	30
History and/or posted material	18	39
Knowledge of physical education objectives	14	30
Rules-regulations	46	
Attendance	30	65
Number of excuses	28	61
Gum chewing	40	87
Jewelry	35	76
Dress (uniform, socks, etc.)	32	70
Clean uniform	41	89
Lateness	41	89
Showers	26	57
Participation	46	
Sportsmanship	38	83
Respect for teacher	37	80
Respect for peers	37	80
Initiative	36	78
Leadership	34	74
Cooperation	39	85
Health factors	25	54
Safety factors	29	63
Responsibility	32	70

TABLE XXIX

RAW DATA
OBJECTIVES SECTION OF QUESTIONNAIRE

Questions on Questionnaire	Total Number of Responses N	Per Cent
V. Objectives		
A. What are the objectives sought?		
Skill	69	28
Knowledge	30	12
Behavior	71	29
Non-gradeable objectives	76	31
B. Are there any external factors in your school making it impossible to achieve your objectives?	36	
Class size	19	53
Gym space	11	31
Field space	5	14
Facilities and equipment	12	33
Time schedule	2	6
Attitude	2	6

SAMPLE OF QUESTIONNAIRE

Miss Margaret Feuerlein
P. O. Box 509
N. Spencer Annex
University of North Carolina
Greensboro, North Carolina

Return by May 1st to:

QUESTIONNAIRE REGARDING GRADING FACTORS IN SECONDARY SCHOOL PHYSICAL EDUCATION

I. GENERAL INFORMATION

A. School Plant (please check or fill in blank)

1. Type of high school: public__, parochial__, private __, other__
2. Grade levels: 7-12__, 9-12 __, 10-12__, other
3. Girls enrolled: _____

B. Teacher: (please check or fill in blank)

1. Degree held: Bachelors___ Area of concentration _____
   Masters ___ Area of concentration _____
   Doctorate___ Area of concentration _____
2. Length of time since receiving last degree:
   1-5 __, 6-10__, 11-15__, 16-20 __, 21-30 __
3. Number of years teaching: _____
4. Number of years teaching physical education: _____
5. Number of years teaching in present school: _____

C. Physical Education Class Structure (Please check)

1. Average class size: 1-20 ___, 21-30 ___, 31-40 ___, 41-50 ___, 51-60 ___, over ___
2. Number of days the classes are scheduled each week:
   Freshmen: 1 __, 2 __, 3__, 4 __, 5 __
   Sophomore: 1 __, 2 __, 3__, 4 __, 5 __
   Juniors: 1 __, 2 __, 3__, 4 __, 5 __
   Seniors: 1 __, 2 __, 3__, 4 __, 5 __
3. Length of class (min): 30 ___, 35 ___, 40 ___, 45 ___ 50 ___, 55 ___, 60 ___, over 60 __
4. Total time alloted for dressing: (min)
   5 ___, 10 ___, 15 ___, 20 ___
5. Are classes scheduled according to skill? yes __, no __
6. Are classes scheduled according to grade level? yes __ no __
7. Please check the activities for which co-educational classes are regularly scheduled. If the activity is not taught place N.A. on the blank.
   swimming __, bowling __, volleyball __, folk and square dancing __, social dance __, recreational activities __, others _____ (please list)
   co-education activities are not scheduled _____

II. REPORT CARD INFORMATION

A. Method (please check)

1. Which system of recording grades is used in physical education? A-F __, Percentages __, 5 Point __, Pass-Fail __, S or U __, Other __
2. Which system of recording grades is used in other academic classes? (e.g. English, French, etc.) A-F __, Percentages __, 5 Point __, Pass-Fail __, S or U __, other __
3. How long is each academic marking period? 4 weeks __, 6 weeks __, 8 weeks __, 10 weeks __, Other __
4. How often is the physical education report card grade issued? every marking period __, every other marking period __, other __
5. Do the boys receive the same type of physical education grade as the girls (e.g. A-F, Pass-Fail)? yes __ no __
6. Does the physical education report card provide space for checking or rating students on attitude, behavior, personality development, work habits, etc.? yes __ no __ If yes indicate the method used: check __, S-U __, A-F __
7. Who determines the method used for recording grades (e.g. A-F, S-U, etc.)? superintendent__, principal__, Dep't chairman__, teacher__, board of education __, dep't committee __, other __
8. Has the physical education department used any other method for recording grades during the last 10 years? yes __ (explain) no __
9. What was the reason for the change?
10. Do you agree with the change? yes __ no __, (if no, please comment)

B. General

1. Is a passing grade in physical education every year a graduation requirement of the school? yes __, no __
2. Is the physical education grade considered in determining honor roll status? yes __, no __
3. Is the physical education grade considered in computing the overall grade point average? yes __, no __
4. Approximately how many girls were taught physical education for the year 1965-1966? _____
5. Approximately how many girls failed physical education for the year 1965-1966? _____
6. Which method of recording grades do you feel best evaluates a student's work in physical education? A-F __, Percentages __, 5 Point __, S or U __, Pass-Fail __, Other __

III. EVALUATION

A. Methods - overall

1. Are the objectives for each activity unit discussed with the class? yes __, no __
2. Is the student given an opportunity to state the grade he thinks he has earned prior to receiving the teacher's grade? yes __, no __

3. Is a conference held with the student to discuss any discrepancies between the grade assigned and the grade he had expected? yes__, no __
4. Is your evaluation of the students used for any purposes other than for grading? yes__, no __ (if yes, please list)
5. Are special conferences scheduled with the student to discuss low grades? yes__, no __
6. If special conferences are held, who holds the conference? physical education teacher__, guidance counselor __ homeroom teacher __, other _____

B. Methods - specific

1. In which of the following activities are written tests given? If the activity is not taught, place N.A. (not applicable) in the space. basketball __, soccer __, hockey __, badminton __, volleyball __, swimming __, stunts __, track and field __, softball __, social dance __, tennis __, folk and square dance __, physical fitness unit __, recreational activities __, bowling __, archery __, lacrosse __, Others _____
Written tests are not given. _____
2. (a) Check the method of evaluation used in determining a skill grade in the following activities:
(b) If more than one method is used in any activity, place an X under the method that receives the most weight in determining the skill grade for that activity.
(c) If the activity is not taught, please N.A. (not applicable) in the box.

	Method of Evaluation		
ACTIVITY	Standardized Skill Test (Published)	Self-devised Skill Test	Subjective Grade Teacher's Judgement
Basketball			
Soccer			
Hockey			
Badminton			
Volleyball			
Swimming			
Stunts			
Mod. dance			
Bowling			
Lacrosse			

Method of Evaluation

ACTIVITY	Standardized Skill Test (Published)	Self-devised Skill Test	Subjective Grade Teacher's Judgement
Archery			
Speedball			
Track-field			
Softball			
Folk dance			
Social dance			
Recre. activ.			
Tennis			
Physical fit.			
Others:			

IV. GRADING FACTORS

A. Specific

DIRECTIONS: (Please read carefully)

1. Check the areas which play a part in determining a final grade each marking period.
2. In the square for each main category, place the total percentage value that the category receives when determining the final grade for the marking period.
3. In the circle for each sub-category, place the percentage value that goes into making up the value found in the square.

EXAMPLE: SKILL FACTORS_____ 35%

A. Motor Skill ---------- 30%

B. Physical Fitness---------- 5%

(THE PERCENTAGES IN THE 3 SQUARES SHOULD ADD UP TO 100%)

SKILL FACTORS---------- %

A. Motor Skill ---- %

__standardized skill test (published)
__self-devised skill test
__ability to use a skill in a game situation
__daily performance of skill
__use of strategy
__Others: List

KNOWLEDGE FACTORS---------- %

A. Skill Knowledge ---- %

__knowledge of rules--written
__knowledge of skill technique (written)
__Other: List

BEHAVIOR-ATTITUDE-------- %

A. Rules and Regulations - %

__attendance
__number of excuses
__gum chewing
__jewelry
__dress (uniform, sock, etc.)
__clean uniform, socks
__lateness
__showers
__Others: List

IV. GRADING FACTORS (continued)

SKILL FACTORS----------%	KNOWLEDGE FACTORS----------%	BEHAVIOR-ATTITUDE---------%
B. Physical Fitness---- %	B. General Knowledge------- %	B. Participation------ %
__standardized physical fitness test (published)	__safety factors	__sportsmanship
__self-devised physical fitness test(s) or unit	__maintaining physical fitness (written test)	__respect for teacher
	__history information and/or posted materials-written	__respect for peers
	__knowledge of objectives of physical education-written	__initiative
	__Others: List	__leadership
		__cooperation
		__health factors
		__safety factors
		__responsibility
		__Others: List

B. General Information

1. On which of the following are grades based? achievement __, effort __, improvement __, (if a combination, please explain)

2. Are all grade levels evaluated in relatively the same manner as indicated on the previous page? yes __, no __ (if no, please explain)

3. Do all activities receive relatively the same percentage value for the factors listed on the previous page? yes __, no __ (if no, please explain)

4. Is there any rule or regulation in physical education that could cause a student to fail for the marking period regardless of skill level and knowledge? (e.g. being late too often, not taking showers, etc.) If yes, please list these rules.

OBJECTIVES

Briefly state the objectives of the physical education program in your school. Please indicate which ones you feel are primary objectives and which ones are secondary objectives.

Are there any external factors in your school that make it impossible to achieve your objectives? (e.g. class size, equipment, etc.) yes ___, no ___ If yes, please list.

If you would like to receive information concerning the results of this study, please fill in the information below, otherwise it is not necessary to sign the questionnaire.

NAME _____

SCHOOL _____

ADDRESS _____

APPENDIX C

Cover Letter

Follow Up Post Card

Schools Receiving Questionnaire

Rating Instructions for Stated Objectives

Stated Objectives

Stated Objectives Ratings

SAMPLE OF COVER LETTER

North Spencer Annex
University of North Carolina
Greensboro, North Carolina
April 11, 1967

Chairman,
Girls' Physical Education Department

Dear Physical Educator,

During the last three decades, there has been much controversy concerning grading practices in all educational areas. Due to the multiple objectives of the physical education profession and to individual philosophies of teachers and administrators, a variety of methods for evaluating and grading students has emerged.

Having taught physical education for six years in a New Jersey high school, I am cognizant of the problems, disagreements, and dissatisfactions that many physical educators encounter when it comes time to record grades for their students. I became interested in comparing the various grading methods employed by a number of secondary physical education programs in New Jersey. Therefore, as a graduate student at the University of North Carolina at Greensboro this year, I have selected this problem for a thesis topic.

In order to make a comparison, it is necessary to gather information concerning the existing grading practices. Enclosed is a questionnaire designed to gather facts concerning methods of evaluation and grading; and to ascertain how methods of recording grades correlate with grading in other subjects. Your signature will not be necessary unless you wish to receive information concerning the results of the study.

I hope to discover some of the basic principles and philosophies behind grading practices in girls physical education programs. Only through a better knowledge of the existing methods can we hope to understand the problem. I do hope you can find the time in your all too busy schedule to give some thought to the questionnaire. An early reply would be most appreciated.

Thank you for your time and consideration in answering the questionnaire.

Sincerely yours,

Margaret J. Feuerlein

SAMPLE OF FOLLOW UP POST CARD

Dear Physical Educator:

Just a reminder.....it is not too late to answer and return the questionnaire on grading if you haven't already done so. I realize that you are all busy at this time of the year but I would appreciate a reply by May 15.....if possible.

Thank you for your cooperation.

Sincerely,

Margaret J. Feuerlein
P. O. Box 509, Spencer Annex
UNC-G
Greensboro, North Carolina

LIST OF ORIGINAL SELECTED SAMPLE

CENTRAL DISTRICT

Abraham Clark High School
Roselle, New Jersey

*Arthur Johnson Regional High School
Clark, New Jersey

Batton High School
Elizabeth, New Jersey

*Bridgewater Raritan High School
Raritan, New Jersey

Cathedral High School
Trenton, New Jersey

*Central High School
Trenton, New Jersey

Central High School
Pennington, New Jersey

Delaware Valley Regional High School
Frenchtown, New Jersey

East Brunswick High School
East Brunswick, New Jersey

Edison High School
Edison, New Jersey

Freehold Regional High School
Freehold, New Jersey

Gill School
Bernardsville, New Jersey

* Gov. Livingston High School
Berkeley Heights, New Jersey

Hamilton High School East
Trenton, New Jersey

*Hamilton High School West
Trenton, New Jersey

High Bridge High School
High Bridge, New Jersey

Highland Park High School
Highland Park, New Jersey

*Hillside High School
Hillside, New Jersey

*Hunterdon High School Central
Flemington, New Jersey

John F. Kennedy Memorial High School
Iselin, New Jersey

*John P. Stevens High School
Edison, New Jersey

*Jonathan Dayton Regional High School
Springfield, New Jersey

Linden High School
Linden, New Jersey

Long Branch High School
Long Branch, New Jersey

*Manasquan High School
Manasquan, New Jersey

Manville High School
Manville, New Jersey

Metuchen High School
Metuchen, New Jersey

Middlesex High School
Middlesex, New Jersey

Mother Seton Regional High School
Clark, New Jersey

*New Brunswick High School
New Brunswick, New Jersey

North Plainfield Senior High School
North Plainfield, New Jersey

Notre Dame High School
Trenton, New Jersey

Oak Knoll
Summitt, New Jersey

*Piscataway High School
Piscataway, New Jersey

*Princeton High School
Princeton, New Jersey

Red Bank High School
Red Bank, New Jersey

*Ridge High School
Basking Ridge, New Jersey

Rumson Fairhaven Regional High School
Rumson, New Jersey

St. Anthony's High School
Trenton, New Jersey

Scotch Plains-Fanwood High School
Scotch Plains, New Jersey

*Somerville High School
Somerville, New Jersey

South Brunswick High School
South Brunswick, New Jersey

South Freehold Regional High School
Farmingdale, New Jersey

South River Senior High School
South River, New Jersey

Summit Senior High School
Summit, New Jersey

Union Catholic High School
Scotch Plains, New Jersey

*Union High School
Union, New Jersey

Valley Road School
Princeton Township, New Jersey

Watchung Regional High School
Warren Township
Plainfield, New Jersey

Westfield High School
Westfield, New Jersey

EASTERN DISTRICT

Bloomfield High School
Bloomfield, New Jersey

College High School
Montclair, New Jersey

Dickinson High School
Jersey City, New Jersey

East Orange High School
East Orange, New Jersey

East Orange Catholic High School
East Orange, New Jersey

*Ferris High School
Jersey City, New Jersey

Glen Ridge High School
Glen Ridge, New Jersey

*Irvington High School
Irvington, New Jersey

Lincoln High School
Jersey City, New Jersey

Livingston High School
Livingston, New Jersey

Millburn Senior High School
Millburn, New Jersey

*Montclair High School
Montclair, New Jersey

North Bergen High School
North Bergen, New Jersey

St. Aloysius High School
Jersey City, New Jersey

School #14
Jersey City, New Jersey

School #30
Jersey City, New Jersey

Snyder High School
Jersey City, New Jersey

*Verona High School
Verona, New Jersey

*West Essex Regional High School
Caldwell, New Jersey

NORTHEASTERN DISTRICT

Bergenfield High School
Bergenfield, New Jersey

*Dumont High School
Dumont, New Jersey

Dwight Morrow High School
Engelwood, New Jersey

*Dwight School
Engelwood, New Jersey

Emerson Junior-Senior High School
Jersey City, New Jersey

Glen Rock Senior High School
Glen Rock, New Jersey

Hasbrouck Heights High School
Hasbrouck Heights, New Jersey

Haworth Public School
Haworth, New Jersey

*Indian Hills High School
Oakland, New Jersey

*Lakeland Regional High School
Wanaque, New Jersey

Leonia High School
Leonia, New Jersey

Midland Park Junior-Senior High School
Midland Park, New Jersey

Northern Valley Regional High School
Demarest, New Jersey

*Northern Valley Regional High School
Old Tappan, New Jersey

Paramus High School
Paramus, New Jersey

*Pascack Hills High School
Montvale, New Jersey

Pascack Valley High School
Hillsdale, New Jersey

*Passaic Valley High School
Little Falls, New Jersey

Pompton Lakes High School
Pompton Lakes, New Jersey

*Ramapo Regional High School
Franklin Lakes, New Jersey

*Ramsey High School
Ramsey, New Jersey

*Ridgefield Park High School
Ridgefield, New Jersey

Ridgewood High School
Ridgewood, New Jersey

River Dell Senior High School
Oradell, New Jersey

Rutherford High School
Rutherford, New Jersey

St. Cecelia High School
Englewood, New Jersey

Selzer School
Dumont, New Jersey

Teaneck High School
Teaneck, New Jersey

*Wayne High School
Wayne, New Jersey

Wood Ridge High School
Wood Ridge, New Jersey

NORTHWESTERN DISTRICT

Booton High School
Booton, New Jersey

*Butler High School
Butler, New Jersey

*Chatam Senior High School
Chatam, New Jersey

Chatam Township High School
Chatam, New Jersey

*Dover Senior High School
Dover, New Jersey

Franklin High School
Franklin, New Jersey

Hanover Park High School
Hanover, New Jersey

Jefferson Township High School
Oakridge, New Jersey

Madison Senior High School
Madison, New Jersey

Morris Hills Regional High School
Rockaway, New Jersey

Morris Knolls
Rockaway, New Jersey

*Morristown High School
Morristown, New Jersey

Newton High School
Newton, New Jersey

*Parsippany High School
Parsippany, New Jersey

Pequannock Township High School
Pompton Plains, New Jersey

Pope John 23rd High School
Sparta, New Jersey

Randolph High School
Dover, New Jersey

Sparta High School
Sparta, New Jersey

Washington High School
Washington, New Jersey

West Morris Regional High School
Chester, New Jersey

SOUTHERN DISTRICT

Brick Township High School
Brick Township, New Jersey

Central Regional High School
Bayville, New Jersey

*Deptford High School
Gloucester, New Jersey

John F. Kennedy High School
Willingboro, New Jersey

Lenape Regional High School
Medford, New Jersey

Lower Cape May Regional High School
Cape May, New Jersey

Mainland Regional High School
Linwood, New Jersey

North Burlington County
Regional Junior-Senior
High School
Columbus, New Jersey

Ocean City High School
Ocean City, New Jersey

*Oakcrest High School
Mayslanding, New Jersey

*Pitman High School
Pitman, New Jersey

*Pleasantville Senior High
School
Pleasantville, New Jersey

*Point Pleasant Boro. High
School
Point Pleasant, New Jersey

*Riverside High School
Riverside, New Jersey

Triton Regional High School
Runnemede, New Jersey

*Williamstown High School
Williamstown, New Jersey

* Schools wishing information concerning survey.

SAMPLE OF RATING INSTRUCTIONS
FOR OBJECTIVES

If the following objectives were among the objectives of girls high school physical education, under which of the following areas would you place each objective when it came time to determine a student's grade for the marking period?

KEY

1. Skill - which also includes physical fitness
2. Knowledge - general and specific
3. Behavior-Attitude
4. Cannot be used in the determination of a grade as it is not measureable either subjectively or objectively.

Some or many of the objectives listed may fall into more than one area; indicate all areas involved for each objectives. Please place the corresponding numbers (1-4) from the Key in front of each LETTER.

Thank you

SAMPLE OF STATED OBJECTIVES
QUESTIONNAIRE NUMBER

To develop:

2 a. physical development and organic vigor
b. desire health and safety factors
c. an understanding and appreciation of games and activities
d. moral standards and desirable social attitudes and behavior
e. to promote physical and recreation activities for leisure time

4 a. to develop the whole person
b. to develop aesthic awareness
c. to encourage active participation
d. to educate in leisure time activities

5 a. to develop physical fitness to perform daily tasks
b. to increase skill range and efficiency
c. to create favorable ideals and appreciations
d. to promote interest and abilities in leisure time activities
e. to increase knowledge of rules, techniques and strategy

6 a. to develop physical fitness
b. to improve appearance
c. to provide well-rounded activities

7 a. to provide a program that will stimulate interest and joy
b. to develop good muscular coordination
c. to develop self-control, courtest, kindness, obedience, honesty

9 a. to provide vigorous, wholesome, outdoor and indoor activities
b. to increase the natural liking for games so that it grows into a real love for games and vigorous activity
c. to provide instruction which will improve skill and knowledge of games which will carry over into leisure time play
d. to offer opportunity for leadership
e. to foster a respect for the rules of the game
f. to provide opportunity for the exercising of self-confidence and self-control
g. to encourage a respect for superior skill displayed by others and modesty for one's own skill
h. to provide instruction and practice in individual sports which can be continued in adult life
i. to develop good sportsmanship
j. to provide an opportunity for experiencing and gaining satisfaction from such qualities as cooperation, social sensitivity, leadership, belonging, which give child status

10 a. to provide a program to meet the needs of all girls
b. to make all activities interesting
c. to foster any latent leadership ability among girls

d. to equip girls with sports skill that will enable them to get maximum amount of pleasure from physical activities
e. to teach the highest ideals of sportsmanship and fair play
f. to provide organizations in which girls may plan and execute their own activities

12 a. to develop physical fitness
b. to develop coordination
c. to develop agility, flexibility, and endurance
d. to develop sportsmanship
e. to develop grace in movement
f. to provide leisure time activities
g. to develop good posture
h. to develop confidence in self
i. to develop group feeling and understanding
j. to develop a habit of following directions

13 a. to develop physical fitness and build strength and vigor
b. to provide activities of a carry-over value
c. to promote physical, mental, social, and moral growth of the pupil
d. to develop powers of leadership and cooperation
e. to teach team cooperation, spirit and good sportsmanship

14 a. organic development
b. neuromuscular development
c. interpretive and intellectual ability
d. emotional responsiveness

15 a. physical development
b. social development
c. emotional development
d. recreational development
e. intellectual development

16 a. to motivate each student to participate in our program to the best of their ability

17 a. develop organic vitality
b. to develop neuro-muscular skills
c. to develop proper ideals and attitudes towards activity and leisure time
d. establish desirable habits of conduct and citizenship
e. to provide for individual differences
f. to recognize the need and importance of established safety measures
g. to give opportunities to develop leadership, creativeness, confidence, poise, gracefulness and good posture
h. to give students opportunities to cooperate with one another
i. to provide challenge and incentive to student to improve skills and achieve high degree of success

j. to develop a sense of responsibility to one's self and to others

20 a. to develop organic vigor
b. to promote bodily and mental poise
c. to provide neuro-muscular training
d. to learn the advanced form of coordination, strength, and endurance
e. to promote wholesome interest in recreational activities

21 a. FUN - to enjoy oneself through activity enough to want to continue after they leave and through this achieve objectives of physical, emotional and intellectual

22 a. physical development
b. personality development
c. cultural development
d. fundamental skill development
e. development of applied knowledge
f. attainment of knowledge of health, health habits and safety
g. development of social poise
h. provide opportunities for leadership

23 a. education through physical activities

24 a. provide activities which meet physical needs of students and promote physical growth
b. develop creative and intellectual thinking
c. provide for emotional needs and promote and challenge emotional growth of students
d. provide activities which meet social needs and promote social growth
e. provide activities which students can utilize upon completion of high school

25 a. develop physical skills
b. emotional growth
c. social grace

26 a. emotional development
b. physical development
c. social development
d. mental development
e. to develop physical fitness and health
f. to develop recreational skills
g. to provide enjoyment
h. to develop sportsmanship and ability to work with others

27 a. to provide a well-rounded program that meets the needs of the individual

b. to provide opportunities and develop a desire for physical fitness
c. to develop an understanding of the value of physical activity throughout life

28 a. to develop physical fitness
b. to develop recreational skills
c. to provide social experiences
c. development of skills

29 a. to provide each girl with a well-rounded program of skills and activities

30 a. the development of large muscles
b. proper exercise
c. incentive for future participation and fun

31 a. "develop and educate the individual through the medium of wholesome and interesting physical activities that she will realize her maximum capacities both physically and mentally and will learn to use her powers and intelligence cooperatively as a good citizen"

32 a. to promote physical fitness
b. to promote team cooperation
c. to provide activities to be used in later life
d. to create enthusiasm for sports, dance, etc., and other types of physical education activities
e. to create a situation for individual accomplishments

33 a. to provide organic vigor
b. to provide neuro-muscular training
c. to promote desirable moral and social qualities as appreciation of the value of cooperation, courage and wholesome interest in truly recreation activities
d. to secure the advanced forms of coordination, strength and endurance

34 a. to develop a healthy body
b. to promote self-discipline
c. to promote a desire for carry-over activities
d. to promote a sense of fair play and sportsmanship

35 a. to develop physical fitness, strength, endurance, speed, etc.
b. to develop motor skill
c. to develop knowledge and appreciation of rules and strategy
d. to develop personal social adjustments

36 a. to increase, develop and enhance fitness, grace, poise and personal health
b. to improve coordination

36 c. to develop confidence in participation of physical activities
d. to appreciate "things" physical
e. to increase understanding of self and how self interacts and interrelates in a group
f. to acquire a sense of pride and accomplishment through performance

37 a. to allow each girl to develop to her fullest potential physically
b. to acquire knowledge and skills for individual sports
c. to stress the importance of poise, grace and good carriage for self assurance
d. to stress "a lady first"

38 a. to improve physical and mental well being
b. to provide a program that meets the needs and interests of all students
c. provide a program with carry-over value

39 a. develop neuro-muscular skill and coordination
b. develop physical fitness and organic health
c. develop a scientific attitude concerning disease and its prevention
d. develop appreciation of the best use of leisure time
e. develop an attitude of good sportsmanship and judgement as a participant and/or spectator

40 a. to provide leisure time activities
b. to provide an outlet for emotions
c. to provide inter-related peer work
d. to provide a general understanding of fitness for life
e. for general enjoyment
f. to build ground work for understanding the "boys" interest in such things as football

41 a. to familiarize the student with the many physical activities available to him
b. to promote good health habits
c. to teach skills and encourage successful application of these motor skills to daily living practices

43 a. physical, mental, emotional, and social development to fullest potential of student
b. prepare student to best fit herself into a democratic society

44 a. provide well-rounded program which will require certain degrees of physical and mental knowledge on part of student

45 a. aid in development of fundamental skills
b. further development in individual and group games
c. to aid in the social and personal adjustments of the individual
d. development of desirable attitudes and concepts concerning physical activities

46 a. educating for fitness
b. provide a variety of activities so that all girls will find an interest

47 a. developing physical fitness
b. develop such skills as balance, control and rhythm
c. creating better mental and emotional health
d. socialization
e. foster a better use of leisure time

49 a. education of the girls through physical activity, mental knowledge, social acceptability and wholesome competition
b. to promote individual responsibility
c. provide enjoyment
d. to provide carry-over activities

52 a. to offer a balanced and varied program of physical and socializing activities, democratically conducted which will contribute to total fitness, social adequacy and emotional stability of individual which will equip her for a satisfying life in a democratic society

b. to develop through knowledge and appreciation, desirable habits, attitudes and practices regarding healthful living

53 a. fun and learning of the various activities
b. physical development and conditioning
c. sportsmanship and getting along with others
d. gaining an understanding and knowledge of movement
e. promote leadership qualities

54 a. physical fitness
b. mental fitness
c. social fitness
d. emotional fitness

55 a. develop moral, physical, mentally, personal, social habits and attitudes
b. develop an awareness of correct posture
c. to develop desirable character

56 a. to develop proper attitudes
b. to develop skills and knowledge
c. to develop physical fitness
d. to develop the proper social relationships

60 a. increase general fitness of each individual
b. to help develop a healthy mental outlook
c. promote sportsmanship and group fellowship

61 a. to provide opportunities to learn a variety of sports
b. to promote good sportsmanship
c. to promote the development of reliability to work with a group towards a common goal
d. to learn activities for leisure time

62 a. to educate the total girl for now and the future
b. to develop sound physical education attitudes
c. to develop sound attitudes in health
d. to reach as many girls as possible

TABLE XXX

SAMPLE OF STATED OBJECTIVES RATINGS

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
2	a	1	1	1	1	1	1
	b	2	2	2, 3	2	2	2, 3
	c	2	3	2, 3	2	3	2
	d	3	4	2, 3	4	4	4
	e	4	4	1, 3	4	4	3, 4
4	a	1, 2, 3, 4	1, 2, 3, 4	4	4	4	4
	b	4	3, 4	4	1, 2	3	2
	c	3	3	3	3	3	3
	d	4	4	1, 3	4	4	3, 4
5	a	1	1	1	1	1	1, 3
	b	1	1	1	1	1	1
	c	3	3, 4	2, 3	4	3	4
	d	4	4	1, 2, 3	4	4	3, 4
	e	2	2	2	2	2	1, 2
6	a	1	1	1	1	1	1
	b	3	3, 4	3	3, 4	4	3, 4
	c	-	4	-	4	4	4
7	a	4	4	3	4	4	3, 4
	b	1	1	1	1	1	1
	c	3	3,4	3	4	3	3
9	a	-	4	1, 3	4	4	3
	b	-	4	3	4	4	4
	c	4	3, 4	1, 2, 3	4	4	3, 4
	d	3	3	3	3, 4	3	3, 4

TABLE XXX (continued)

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
9	e	2	3 3	3	4	3	4
	f	3	3	3	4	3	4
	g	3	3, 4	1, 3	4	3	4
	h	4	1	1, 3	4	1	3, 4
	i	3	3, 4	3	4	3	4
	j	3	4	3	4	4	4
10	a	4	4	1, 2, 3	4	4	4
	b	4	4	3	4	4	4
	c	3	3	3	3, 4	3	4
	d	1	4	1, 3	1	4	4
	e	3	4	3	4	4	4
	f	4	2, 4	1, 2	4	2	3
12	a	1	1	1	1	1	1
	b	1	1	1	1	1	1
	c	1	1	1	1	1	1
	d	3	3, 4	3	4	3	4
	e	1	1, 4	1	1	4	4
	f	4	4	3	4	4	3, 4
	g	1	1, 4	1	1, 2	1	4
	h	3	3, 4	3	1, 2, 3	3	4
	i	3	3	3	4	3	4
	j	3	3	3	4	3	1, 2, 3
13	a	1	1	1	1	1	1
	b	4	4	3	4	4	3, 4
	c	1, 2, 3, 4	3, 4	1, 2, 3	4	3	3, 4
	d	3	3	3	4	3	3, 4
	e	3	3, 4	3	4	4	3, 4

TABLE XXX (continued)

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
14	a	1	1	1	1	1	1
	b	1	1	1	1	1	1
	c	2	2	2	2	2	1, 2
	d	3	4	3	4	4	4
15	a	1	1	1	1	1	1
	b	3	3	3	4	3	3, 4
	c	3	4	3	4	4	4
	d	4	3, 4	1, 2, 3	4	4	3
	e	2	2	2	1, 2	2	2
16	a	4	3	3	4	3	3, 4
17	a	1	1	1	1	1	1
	b	1	1	1	1	1	1
	c	3, 4	3, 4	3	4	3	3, 4
	d	3	3, 4	3	4	3	3, 4
	e	3	4	3	4	4	1, 2
	f	2	2	2, 3	2	2	2, 3
	g	3	1, 3	1, 3	1, 2, 4	1, 3	3, 4
	h	3	3	3	4	3	3, 4
	i	3	3, 4	1, 3	1, 4	3	1, 2, 3
	j	3	3, 4	3	4	3	4
20	a	1	1	1	1	1	1
	b	3	1, 4	1, 2	1, 4	1	1, 2
	c	1	1	1	1	1	1
	d	1	1	1	1, 2	1	1
	e	4	4	3	4	4	4
21	a	4	3, 4	1, 2, 3	4	3	4

TABLE XXX (continued)

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
22	a	1	1	1	1	1	1
	b	3	3	3	4	3	4
	c	4	3	1, 2, 3	4	3	4
	d	1	1	1	1	1	1
	e	2	2	2	1, 2	2	1, 2
	f	2	2	2	2	2	2
	g	3	3, 4	3	4	3	3, 4
	h	3	3	3	4	3	3, 4
23	a	1, 2, 3, 4	1, 2, 3	1, 2, 3	4	1, 2, 3	1, 2, 3
24	a	1	1	1	1	1	1
	b	2	2	2	2	2	2
	c	3	3, 4	3	4	3	4
	d	3	3, 4	3	4	3	3, 4
	e	4	4	1, 2, 3	4	4	4
25	a	1	1	1	1	1	1
	b	3	3, 4	3	4	3	4
	c	3	3, 4	3	4	3	4
26	a	3	3, 4	3	4	3	3, 4
	b	1	1	1	1	1	1
	c	3	3, 4	3	4	3	3, 4
	d	2	2	2	2	2	2
	e	1	1	1	1	1	1
	f	4	4	1, 3	4	4	3, 4
	g	4	4	3	4	4	3, 4
	h	3	3, 4	3	4	3	3, 4

TABLE XXX (continued)

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
27	a	1, 2, 3, 4	4	1, 2, 3	4	4	3, 4
	b	1	4	1	4	4	3, 4
	c	4	2	1, 2, 3	4	2	4
28	a	1	1	1	1	1	1
	b	4	1	3	1	1	3, 4
	c	3	3, 4	3	4	4	3, 4
	d	1	1	1	1	1	1
29	a	4	4	1	4	4	3, 4
30	a	1	1	1	1	1	1
	b	1	4	1	1	4	-
	c	4	3, 4	3	4	4	3, 4
31	a	1, 2, 3	1, 2, 3	1, 2, 3	4	1, 2, 3	4
32	a	1	1	1	1	1	1
	b	3	3	3	4	3	3, 4
	c	4	4	3	4	4	3, 4
	d	4	3, 4	3	4	4	3, 4
	e	3	4	1, 3	4	4	3, 4
33	a	1	1	1	1	1	1
	b	1	1	1	1	1	1
	c	3, 4	3, 4	3	4	3	4
	d	1	1	1	1	1	1

TABLE XXX (continued)

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
34	a	1	4	1	1	4	3, 4
	b	3	3, 4	3	4	3	4
	c	4	3, 4	3	4	3	3, 4
	d	3	3, 4	3	4	3	4
35	a	1	1	1	1	1	1
	b	1	1	1	1	1	1
	c	2	2	2	2	2	1, 2
	d	3	3, 4	3	4	3	3, 4
36	a	1	1, 4	1, 2	1, 2	4	1, 4
	b	1	1	1	1	1	1
	c	4	3, 4	3	1, 2	3	3, 4
	d	4	3, 4	2, 3	4	3	4
	e	3	3, 4	3	4	3	3, 4
	f	4	3, 4	1, 3	4	3	4
37	a	1	1	1	4	1	4
	b	1, 2	2	1, 2	1, 2	2	1, 2
	c	1	1	1, 3	4	1	3, 4
	d	-	3, 4	3	4	3	4
38	a	1, 2	1, 2, 4	1, 2	1, 2, 4	1, 2	3, 4
	b	1, 2, 3, 4	4	1, 2, 3	4	4	3, 4
	c	4	4	1, 2, 3	4	4	3, 4

TABLE XXX (continued)

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
39	a	1	1	1	1	1	1
	b	1	1	1	1	1	1
	c	-	3	2, 3	2	3	2
	d	4	3, 4	3	4	3	3, 4
	e	3	3, 4	3	4	3	4
40	a	4	4	1, 3	4	4	3, 4
	b	3	3, 4	3	4	4	4
	c	3	3	3	4	3	3, 4
	d	1	2	2, 3	2	2	4
	e	4	3, 4	3	4	3	4
	f	4	2, 3	3	4	2, 3	4
41	a	2	2	1, 2	4	2	4
	b	4	1	2, 3	4	1	3, 4
	c	1	1	1, 3	1, 2	1	3, 4
43	a	1, 2, 3, 4	1, 2, 3	1, 2, 3	4	1, 2, 3	4
	b	1, 2, 3, 4	4	3	4	4	4
44	a	1, 2	1, 2	1, 2	1, 2	2	1, 2
45	a	1	1	1	1	1	1
	b	1	1	1	1	1	4
	c	3	3, 4	3	4	3	4
	d	3	3, 4	3	4	3	3, 4
46	a	1	1, 4	1	1	1	1
	b	4	4	1, 3	4	4	4

TABLE XXX (continued)

Questionnaire Number	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
47	a	1	1	1	1	1	1
	b	1	1	1	1	1	1
	c	3	3	2, 3	4	3	4
	d	3	3, 4	3	4	3	3, 4
	e	4	4	1, 3	4	4	3, 4
49	a	1, 2, 3	1, 2, 3	1, 2, 3	1, 2	1, 2, 3	1, 2, 4
	b	3	3	3	4	3	4
	c	4	3, 4	3	4	3	4
	d	4	4	3	4	4	3, 4
52	a	4	3, 4	1, 2, 3	4	3	4
	b	3	2	2, 3	4	2	4
53	a	1, 2	3, 4	1, 3	4	3	1, 2, 4
	b	1	1	1	1	1	1
	c	3	3, 4	3	4	3	4
	d	1	2	2, 3	1, 2	2	1, 2
	e	3	3	3	4	3	4
54	a	1	1	1	1	1	1
	b	2	2	2	2	2	2
	c	3	3, 4	3	4	3	4
	d	3	3, 4	3	4	3	4
55	a	1, 2, 3, 4	3, 4	1, 2, 3	4	3	4
	b	4	1	1, 2	1, 2	1	4
	c	3	3, 4	3	4	3	4

TABLE XXX (continued)

Questionnaire Number-	Stated Objectives	Rater #1	Rater #2	Rater #3	Rater #4	Rater #5	Rater #6
56	a	3	3, 4	3	4	3	3, 4
	b	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2
	c	1	1	1	1	1	1
	d	3	3, 4	3	4	3	4
60	a	1	1	1	1	1	1
	b	3, 4	3, 4	2, 3	4	3	4
	c	3	3, 4	3	4	3	4
61	a	1	2	1	4	2	3, 4
	b	3	3, 4	3	4	3	4
	c	3	3, 4	3	4	3	3, 4
	d	4	4	3	4	4	3, 4
62	a	1, 2, 3, 4	3, 4	1, 2, 3	4	3	4
	b	3	3, 4	3	4	3	3, 4
	c	4	3, 4	2, 3	4	3	4
	d	-	4	4	4	4	4